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ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF LATENT PLEURISY, AND ON A CASE OF LATENT VALVULAR DISEASE OF THE HEART.

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GENTLEMEN: The ideas which we form of certain diseases are so apt to be derived exclusively from characteristic instances of them that less striking and complete examples may escape recognition, unless we are in the habit of making a systematic examination of our patients. Diseases which in their ordinary form and average degree arrest the attention at once and fix it upon the suffering organ may, under other conditions, either of degree or association, be entirely latent and betray themselves by few of their usual and familiar symptoms. In other cases, again, a part essential to life may become profoundly altered in structure, so much so as to render death, and even sudden death, probable, and yet the patient may have no consciousness of his infirmity, and suffer nothing from it until some accident disturbs the nicely adjusted balance among his organs and rapidly extinguishes life. I propose to illustrate these general propositions by the study of two cases, the one of pulmonary and the other of cardiac disease.

CASE I. Latent Pleurisy.—J. H. is 29 years old, unmarried, and a laborer, of temperate habits. He was always healthy until about three months ago. At that time, in the month of December, he was working in a coal-oil factory, and was much exposed to cold and wet. He believes that he then caught cold; but he had no cough nor any pain in the chest. For about a month he still performed his daily labor, and would have continued to do so, had he not been discharged, along with many other men, for want of work. Not until several days afterwards did he observe that he had some shortness of breath on making any exertion, with a slight, dry cough, but no pain. This state of health remained unchanged until he entered the hospital, February 5, 1870, or about a week ago.

On examination, the labored action of the chest betokens some dyspnoea. The right side is evidently distended, and is nearly motionless during respiration; it is also everywhere dull on percussion, and the dulness extends beyond the left edge of the sternum. Over the left lung the percussion note is loud and clear. Auscultation of the right lung, behind, reveals rough breathing near the apex, bronchial breathing at the root, and the absence of breathing in the lower half of the lung. In front there is exaggerated respiration under the clavicle, and progressively fainter breathing-sounds below. Over the left lung, before and behind, the respiratory murmur is high-pitched, exaggerated, and slightly rough, and is distinct even to the base. The apex-beat of the heart is fully two inches below and to the outside of the left nipple. The liver-dulness extends at least two inches below the margin of the chest.

Since entering the hospital the patient's right side has been blistered, and he has taken iron and iodide of potassium.

This is the history of a disease occurring in a previously healthy man,—a disease apparently occasioned by cold, but attended with neither cough, pain in the chest, fever, nor such a loss of strength as prevented the patient from earning his daily bread by constant and rough labor. Indeed, it was not until he accidentally was compelled to give up work that he bethought himself of being sick, and then, for the first time, he

noticed that he was somewhat oppressed in breathing. This state of the respiration has continued to be almost his only subjective symptom,—the only one, that is, of which he was himself conscious. On making a physical examination of his chest, we discover that the right pleural cavity is distended with liquid, an effusion which, occurring as this has done, must be regarded as denoting a *subacute* pleurisy,—not an *acute* pleurisy; for, although affecting a previously healthy man, it was not accompanied with the sharp, lancinating pain or stitch in the side, the chill, the fever, the cough, or the dyspnoea which denote the occurrence of acute inflammation of the pleura and, *mutatis mutandis*, of other serous membranes. In the latter form of pleurisy the symptoms which have just been enumerated prove a certain degree of vigor in the inflammatory process, a sudden and active arterial congestion, and the rapid exudation of a liquid containing a large proportion of solid matter, which usually coagulates rapidly, producing the so-called false membranes of serous inflammation. But there is another degree—or, I should rather say, kind—of pleurisy, as there is of inflammation of all other serous membranes, and of all tissues whatsoever, in which the process is essentially the same, but is also less energetic, and the symptoms are therefore proportionally slight. In the case before us we are furnished with an example of this form. The cause of pleurisy—dampness with cold—acted upon the patient, and in due time, but long afterwards, he is discovered to have a pleural cavity full of liquid. The cause and the ultimate effect characterize pleurisy, but the intermediate and proper phenomena of that disease, especially fever and pain, are wanting. This is called *subacute* pleurisy, from the nature of its symptoms; but it may also, from its long duration, be designated as *chronic*.

In this case, as in nearly all others of subacute pleurisy arising from external causes, the effusion of liquid was very copious, although it seems to have taken place slowly, for we find it stated in the notes that oppression and shortness of breath were not experienced until several weeks after the original exposure. In acute pleurisy, the primary cause of oppression and dyspnoea is not effusion of serum, but pain; pain restricts the movements of the chest, and may even suspend them altogether, at a time when the amount of effused liquid in the pleural cavity is quite inconsiderable. But in the subacute form, where pain is entirely absent, the dyspnoea is due to a purely mechanical cause,—to the accumulation of serum in the pleural cavity. This liquid compresses the lung, and distends the ribs in proportion as the compression of the lung advances, and thus, by excluding the air from the lung, prevents a due aeration of the blood, and occasions that peculiar and distressing symptom which we call shortness of breath,—a thirst for air, as it were, which the utmost efforts of the respiratory muscles may be unable to satisfy.

Our patient had shortness of breath, and that is the only symptom which he was aware of. He did not perceive what is so plain to him now, and to you at the same time. As you watch his chest during the act of respiration, you observe that the right side is almost motionless, that it is much larger than the left side, and, still further, that the intercostal spaces, which in natural respiration are depressed during the inspiratory act, as, indeed, you perceive that they are on our patient's left side,—that these spaces, I say, are distended and not depressed upon the right side of the chest; that, on the contrary, they form, with the ribs, a smooth and rounded surface, as if they were thrust outwards by a constant force acting from within the chest. Such a force may be exerted by the accumulation of any fluid, as blood, pus, serum, or air; but the history

of the present case has already rendered it probable that the fluid here is mainly serous. The results of percussion lead to the same conclusion. In the lower half of the right side of the chest, percussion is absolutely flat; in the upper half it is more or less dull; and nowhere is it resonant. Not only so: we find that the dull percussion of the right side is not restricted within the normal limits of the right pleural cavity, but that it extends beyond the median line of the sternum, beyond even the left edge of that bone, while over the left lung the percussion sound is loud, clear, and high-pitched. On ausculting the right lung behind, prolonged expiration is found at the apex and at the lower angle of the scapula, while below this level all respiratory sounds cease; the breathing-sounds in the left lung are everywhere loud, prolonged, and shrill.

What do these physical signs teach as to the condition of the organs within the chest? Evidently this: that the cause which dilates the right side of the thorax is the same cause which compresses the right lung; that it operates equally over nearly the whole of the same side; and that it must therefore be a fluid,—a liquid or a gas. That it is not the latter, is proved by the percussion sound, which is flat or dull, and not tympanitic, as it would be were air the distending agent; and that it is the former, is also directly demonstrated by the upper limit of the percussion dulness changing with the position of the patient. We learn further, in regard to the physical signs, viz., from the absence of all respiratory murmur at the base of the lung, where the flatness on percussion is complete, and from the presence of a modified respiratory murmur, bronchial in its quality, at the upper portion of the lung, where the percussion dulness is less absolute, and, further, from the fact that the limits of the percussion dulness vary with changes in the patient's posture, and that, in any position, whatever portion of the right lung is uppermost yields not only more or less resonance on percussion, but also more or less respiratory murmur, bronchial or broncho-vesicular, according to what part of the lung is uppermost for the time being,—we learn, I say, from these physical facts, that the right lung is compressed, and the ribs of the same side are distended, by a liquid effusion into the pleural cavity, which effusion, however, does not compress the entire lung to an equal degree, but, in the erect position of the patient, cuts off all sound from the lower half of the chest on the right side, but allows more or less respiratory murmur to be heard from the upper third of the lung,—from which facts it may further be inferred, I think, that the lung is nowhere adherent to the walls of the chest, but is floated upwards upon or towards the surface of a serous fluid contained in the cavity of the pleura.

This explanation appears to afford a sufficient reason for most of the phenomena of the case we are studying. But there is still another which should be alluded to: I refer to the position of the heart. You have seen that it is thrust far to the left, so that its apex-beat can be felt, as well as seen, two inches below the left nipple and about an inch beyond the line of that projection; in other words, the heart is thrust at least an inch to the left of its normal position, while the patient is sitting or standing. If it occupied this place while the patient lay upon his left side, there would be nothing very extraordinary in the fact, because you should bear in mind that, except the digestive canal, the heart is the most movable organ in the whole body, and changes its position with every alteration in the inclination or decubitus of the trunk. But, as I remarked, its displacement is in this case permanent, and is therefore, in the absence of any disease in the left cavity of the chest, probably occasioned by the effusion which distends the right pleural cavity. We have seen that the effusion does not altogether fill that cavity, for we find lung reso-

nance and respiration at its upper part, and we may therefore fairly conclude, from this fact and from the displacement of the heart taken together, that the effusion is serous and not fibrinous; for had it been of the latter sort it must almost certainly have compressed the entire lung, and rendered respiration everywhere inaudible on the right side, before it invaded the left side of the chest and thrust the heart so far away from its normal position. Another fact mentioned in the notes bears an almost identical interpretation. The liver, it is stated, extends considerably below the false ribs. In the absence of any reason for supposing that the liver is itself increased in size, we may conclude that it is thrust downwards by the same force within the right pleura which we have shown must have displaced the heart; that is to say, the pleural effusion. Consequently, we find that this effusion, although it possesses a force sufficient not only to dislocate the heart, but also to depress the liver, is, nevertheless, unable entirely to overcome the expansive power of the lung and to compress it and deprive it of air. The exertion of this force by the lung proves that organ to be free in its movements; for if the effusion were not, as we have supposed it to be, entirely liquid, the lung would be more or less hampered, and unable to exert the distending and compressing forces which we have seen that it exhibits.

Having thus endeavored to arrive at a just apprehension of the condition of the patient's chest, we have still to determine the questions, What are the prospects of his recovery? and what method of treatment should be employed? This case illustrates the value of an accurate diagnosis in reference to prognosis and treatment; for it is evident that if the investigation we have made had led to the conviction that the lung was bound down by false membranes and the cavity of the pleura was distended with pus, our conclusion in regard to both of these points must have been very different from what it will be now, when the sole indication is to remove the serous fluid which fills the right pleura. There is more than one method of accomplishing this object. One is very prompt and summary; for it consists in drawing off the water by means of a trochar and canula. But this method is not free from objections; for the patient naturally shrinks, as we all do, from a surgical operation; then the puncture, as a wound merely, is not absolutely innocuous, for it may occasion erysipelas; moreover, the pleura, after being emptied, may inflame by the contact of the air, and a purulent secretion, with serious effects, may follow. These objections are not without a force, which is increased in proportion as the operation is not necessary. Now, it cannot be said to be necessary, especially since the patient is suffering very slightly from dyspnoea, and as other means are available which sometimes perfectly succeed in removing serous effusions. I should, perhaps, modify the statement, and say, "measures which sometimes appear to succeed" in removing chronic pleural effusions. I would impress upon you that if a proper regimen is associated with the treatment referred to, the degree of efficacy exerted by each agency may be very difficult to estimate. It is very certain that if I were forced to choose in this case between an appropriate regimen and any given course of medicinal treatment, I should unhesitatingly prefer the former. In the present instance we are not trammelled by any such alternative, but may employ both methods at once. I shall therefore direct this patient to have as good diet as the house affords, and to take as much exercise as he can without fatigue, seeking in this manner to promote the absorption of the effusion. I do not for a moment doubt that it will at least be promoted by these agencies.

The medicinal agents which may be expected to con-

cur with regimen in effecting a cure are both internal and external. Of the latter, the most efficient are blisters. I entertain no doubt, if the fluid in our patient's chest is serous, that large blisters allowed to vesicate fully, but not to produce suppuration, will gradually remove the liquid, or the greater part of it. Their efficiency, certainly, will depend very much upon the quality of the liquid in the pleura; the more watery it is, the more quickly—the more purulent it is, the more slowly—will it subside under this treatment. Whether the blister will act by merely withdrawing so much serum from the blood, which is replaced by an equal or proportionate quantity absorbed from the pleura, or whether it will stimulate the nerves of the skin, and, by a reflex influence, those of the pleura also, so as to quicken the absorbing functions of that membrane, or, finally, whether it will act through the absorption of its cantharidin into the blood, and the stimulation of the capillary functions as a consequence, is more than I can tell you. Nor do I regard the answers to these questions as of primary importance. It is of the utmost interest to us as scientific physicians to know the precise mode in which a medicine operates in curing a disease; but it is of infinitely greater consequence to learn whether it really cures the disease at all. Not a few eminent writers and teachers flatly deny that blisters are capable of removing serous collections in either of the ways that I have suggested, or in any other. The observation of the whole medical world from the beginning until now, and my own observation, have taught me a different lesson; and before I give up my faith in the efficacy of these remedies I must have some better ground of doubt than my inability to explain it. If I must wait until a reason admitting of no doubt or cavil can be given for the operation of medicines in the cure of disease, I would abandon the practice of my profession altogether, rather than be compelled to witness sufferings which I cannot mitigate, and deaths which I am powerless to prevent.

Of internal remedies, several suggest themselves. Purgatives and diuretics would seem to be indicated; for the abstraction of fluid by the bowels and the kidneys, one would imagine, must occasion the absorption of pleural effusions. But here, as so often happens, fact and theory disagree. These evacuants may diminish an anasarca or an ascites, but they have no influence upon a pleuritic effusion. It used to be the practice, in cases like the present, to administer mercury in small doses until the constitutional operation of the drug was exhibited by a slight tenderness and redness of the gums. It is very probable that this treatment might prove curative in the present instance; but at what an expense! At the cost, perhaps, of radically and permanently impairing the health of this man, who, except the local infirmity we have been studying, enjoys pretty good health. I think, therefore, that we are not warranted in resorting to this remedy. There is only one other medicine which it is necessary to consider. Iodine is reputed to exercise an absolute and peculiar control over the function of absorption,—of the substance of certain glands especially,—and a less, though a very efficient one, over effusions and exudations. Upon the ground of this general belief, which it seems to me is very far from being substantially supported by facts, I have prescribed iodide of potassium for our patient, in the dose of five grains three times a day, with the intention of increasing the quantity gradually hereafter. At the same time, and in order to counteract the tendency to anemia which this case exhibits, as nearly all similar ones do, I have recommended that iron be used, in the form of the solution of iodide of iron, as the most appropriate preparation of the metal to be given along with the iodide of potassium.

(To be continued.)

ORIGINAL COMMUNICATIONS.

AMPUTATION AT THE HIP-JOINT

FOR MALIGNANT DISEASE OF THE THIGH.

BY F. F. MAURY, M.D.,

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WHILLIAM WALLACE, a laborer, aged 23 years, was admitted into the surgical wards of the Philadelphia Hospital, April 22, 1869, under the following circumstances. He says that about twelve months ago he received a severe kick upon the anterior and inner aspect of the right thigh at its middle third, which was followed by severe and continued pain. After two weeks, swelling commenced in the limb, and simultaneously there appeared a small, hard, subcutaneous nodule, which was movable and painful. This nodule enlarged slowly at first, but at the date of his admission into the hospital its rapid growth was especially noticeable. It was also the seat of constant pain of a dull, aching, and gnawing character, more intense at night, and depriving him of rest and comfort.

The tumor occupied the anterior aspect of the right thigh. Its greatest circumference, which was at the junction of the middle and upper third of the thigh, measured twenty-seven inches. The left thigh measured, at the same point, seventeen inches. The perpendicular measurement was eleven inches. It was oblong in shape, hard, inelastic, smooth, and immovable. There was elevation of the temperature of the part, with some degree of discoloration, and marked enlargement of the subcutaneous veins. The lymphatic glands of the groin were implicated only to a slight degree. The femoral vessels were stretched over the mass. The growth had weakened and somewhat emaciated the patient; his appetite was impaired, and his sleep sadly interfered with.

On the 6th of May a delicate trochar was plunged into the central part of the growth, to the depth of two inches. A sanguinolent fluid, mixed with some small granular masses of a cheesy consistence, followed the withdrawal of the instrument.

Dr. W. Pepper and Dr. Tyson made microscopical examinations of these constituents. Dr. Pepper stated that the granular masses consisted of numerous cells in an extreme state of fatty degeneration, a large amount of free oil, and some fragments of capillary vessels with fatty walls filled with disintegrating clot. Subsequently Duchenne's flesh-hook was introduced into the upper part of the tumor, to the depth of an inch, and a small piece of firm tissue removed, which was composed partly of the capsule and partly of the proper substance of the mass.

In the sections of this submitted to Dr. Tyson for examination, it was found that a fibrous intercellular substance was not appreciable, the elements being purely cellular, and consisting,

1. Of sharp, well-defined round and oval nuclei, averaging the $\frac{2}{3} \text{ to } \frac{3}{4}$ of an inch in diameter, which were darkly shaded, but, as a rule, only moderately granular. They often existed in closely-packed masses. They were rarely nucleolated.

2. Cells,—all, more or less, modifications of the spindle-cell, of which certain typical forms were also present. Most forms, however, were modified, including simple oval cells abruptly terminated on either side, and occasionally angular.

They contained a well-defined nucleus, presenting all the characters assigned to the free nuclei, and, in their darker shading, more distinct than the body of the cell.

The nuclei, with very few exceptions, were single; an occasional spindle-cell was present with two nuclei, but these were rare.

Equally rare were large oval cells, averaging $\frac{2}{3} \text{ to } \frac{3}{4}$ of an inch, and containing as many as three nuclei. The cell-contents were now and then granular, but more frequently faintly nebulous. As in the free nuclei, these cells were rarely nucleolated.

3. A small but appreciable number of granule cells, corresponding more frequently in size and form with the large oval cells.

As to the classification of this tumor, with regard to the intercellular substance, this is clearly in minimum, being, in the sections examined, barely, if at all, appreciable. The form of the cell-element—a modified connective tissue cell—

places it in the connective tissue series. In quantity, the cellular element decidedly predominates.

Virchow applied the term sarcoma to such a formation, of which the tissue belongs to the common group of the connective tissues, and which is accurately distinguished from the different species of the connective tissue group by the predominant development of the cell-element. These are not commonly considered malignant tumors; yet Virchow and Paget tell us that they have a certain tendency to recurrence, many being operated upon four or five times in the same place, and that, although they generally have an innocent period, later they may become malignant.

Anatomically, then, perhaps this tumor may be considered innocent; physiologically, malignant.

On May 6, under the influence of an opiate, the patient passed a quiet night; the tongue was moist and slightly coated; the pulse 96, full and regular.

May 7. He suffered much pain during the night; slept but little. Tongue dry and furred; skin hot; pulse 108, and quick.

On the 8th of May, a hypodermic injection of one-quarter of a grain of sulphate of morphia having been previously administered, the patient was placed on the operating-table of the amphitheatre of the hospital. Pure chloroform was administered. There were present, in addition to the medical class, Professor Gross and Drs. W. L. Atlee, Brinton, W. H. Pancoast, S. W. Gross, Morton, Ludlow, Rhoads, Pepper, Packard, Thompson, Keen, and Mears. All these gentlemen expressed a conviction as to the malignancy of the growth and the eminent propriety of the contemplated operation.

The antero-posterior method by transfixion was the procedure selected, the circulation being so completely controlled by the abdominal tourniquet that not more than three ounces of blood were lost. Seventeen ligatures were applied to the divided vessels, including the femoral vein. Reaction came on soon after the completion of the operation, and the stump was dressed four hours subsequently.

In conformity with the practice of Professor Gross, the flaps were brought into close approximation, by means of four long steel needles inserted at equidistant points through their substance, and the union was further strengthened by carrying a silken thread from needle to needle, after the manner of the hare-lip suture. The intervals between the needles were brought in contact with the ordinary interrupted suture and long, narrow adhesive strips. A compress secured by a roller, placed upon the posterior surface of the thigh, completed the dressing.

For the first twenty-four hours there was some nausea, but, under the use of ice held in the mouth, and morphia, he passed a comparatively comfortable time. On the third day the dressings were removed, when the stump presented an excellent appearance, there being merely slight serous oozing. On the 17th of May, at least three-quarters of the wound was found to have united by the first intention. On the 21st, the pins at the inner and outer angles of the wound were removed, the other two not being interfered with for two weeks longer. On the 25th, seven minor ligatures came away; while the femoral thread was removed on June 29, the remainder having dropped off in the interval.

Up to this time the general condition of the patient had been most excellent; his appetite and sleep had been good; he had been sustained by champagne and the most nutritious and concentrated food; there had never at any time been much purulent discharge from the stump; but he suddenly, without any assignable cause, began to fail rapidly, and expired on the 30th of June.

Post-mortem examination revealed the following facts: Body very much emaciated. The stump had apparently entirely healed. On laying it open, however, along the line of incision an appearance very much resembling that of the structure of the pancreas was observed. The vessels were all well sealed. Opposite the acetabulum there was a small cavity containing half an ounce of pus. Indications of general peritoneal inflammation were present. Adhesions of the parietal and visceral layers existed. About eight ounces of thin, offensive pus were found in the abdominal cavity. The spleen was of natural size, friable and granular. The kidneys were normal.

There had been an extension of the disease, which had re-

turned in the stump, up into the abdominal walls along Poupart's ligament. There was an abscess between the abdominal walls, near the anterior superior spinous process of the ileum, containing eight ounces of pus.

There also existed a psoas abscess, which contained half a pint of pus. The lungs were natural. About two ounces of bloody fluid were found in the pleural cavity.

The heart was small, weighing nine ounces; its texture was normal.

A microscopical examination of the recurrent tumor was made. It presented very little stroma, but was composed entirely of cells, most of them round or slightly oval, with single nuclei and granular contents, and a few spindle-shaped.

The tumor which occupied the pelvis was chiefly composed of diseased glands. The cut section yielded abundant cancer-juice on being scraped. The elements present in the mass bore strong resemblance to those in the original tumor, the differences probably depending on the greater rapidity and luxuriance of growth.

Remarks.—The points of practical interest possessed by this case are these: 1. The true nature of the affection, when considered in its relation to operative interference; 2. The mode of dressing and firmly closing amputation-flaps.

The microscopical examinations plainly place this tumor in the group denominated "spindle-celled sarcoma" by Virchow, the unwavering tendency of which is to recurrence after removal, at or near the site of operation. The teaching of surgical experience affords us that, in the removal of limbs for suspected or well-defined malignant disease, it is better to disarticulate at some distance, if possible, from the morbid growth than to interfere with the continuity of a bone, as by this means the greatest immunity from relapse is afforded. In the present instance, the rapidity of repudulation was greatly increased by the fact that it was observed that all the cut ends of vessels, especially the veins, opening into the flaps at the time of operation were filled with a white, soft substance, similar to, and identical in all respects with, the composition of the morbid mass, the coats of the vessels themselves also being evidently implicated.

The mode of retaining the flaps in close approximation by means of long steel pins was first practised in this city by Professor Gross, in his second case of amputation at the hip-joint, performed at the clinic of the Jefferson Medical College, October 14, 1865, which case is embodied in the valuable paper of Dr. Thomas G. Morton, of this city, "On Amputation at the Hip-Joint, with the Histories of the Cases in which the Operation has been performed in Philadelphia," published in the *American Journal of the Medical Sciences* for July, 1866, p. 31. As chief of the clinic at that time, I had the honor of observing the satisfactory result of this procedure. The present case likewise bears testimony to the same effect. Complete coaptation of the flaps can thus be readily secured, which is important in preventing an undue accumulation of pus and irritating fluids within.

In conclusion, I must express my indebtedness to Drs. Hough, Elmer, Porter, and Mosely, house surgeons, for their valuable services rendered in the after-treatment of the case.

CHEMICAL ACTION OF MUCOUS MEMBRANES.—Dr. Paschkin, of St. Petersburg (*London Lancet*, Oct. 1, p. 480), proves by experiment that an aqueous infusion of the mucous membrane of the small intestine of the dog is capable of converting starch into sugar; a power which is also possessed by the mucous membrane of the trachea and the urinary bladder, and to a less extent by that of the gall-bladder, cæcum, large intestine, stomach, and rectum. None of them can, however, like the infusion of the mucous membrane of the small intestine, convert cane-into grape-sugar. This last power is found to be possessed by the dog, pig, rat, mouse, and rabbit, but not by the sheep and cow.

CASE OF ALLEGED MALPRACTICE.

BY JOHN J. REESE, M.D.,

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CASES in law in which an action has been brought for alleged malpractice have, within the past few years, become increasingly frequent, both in Philadelphia and New York.* Unprincipled patients, who have been wisely and skilfully treated by experienced surgeons for diseases the cure of which must necessarily entail some deformity—such as certain fractures and luxations, caries of the spine, etc.—not unfrequently exhibit their appreciation of the attention and skill of their surgeon by dragging him into court in a suit for heavy damages for alleged malpractice in their case. That this is a most flagrant wrong to the practitioner, as well as the grossest outrage against justice and humanity, none will deny. But the glaring violation of right may not be always vindicated in the courts of justice, and a stupid and prejudiced jury *may not* always render a verdict in accordance with truth and equity. Hence it becomes a matter of the utmost importance to the profession to protect itself against all such flagitious attacks.

In nearly every such case, we may be certain that the plaintiff is prompted by the base desire of pecuniary gain, hoping to realize a handsome profit by his infamous scheme; and in too many instances, it is to be feared, he is aided, if not instigated, by some wretched hanger-on of the law, or, it may be, even by some so-called doctor, who has been promised beforehand a goodly share in the expected plunder.

A case of this nature (Haire *vs.* Reese) which lately occurred in this city, and in which the writer was the defendant, has excited a good deal of interest in both the medical and legal professions, inasmuch as it involved certain questions of importance, both in a professional and scientific point of view. The very able charge of Judge Thayer† exhibited all the main points with sufficient clearness; but it may not be amiss to give a synopsis of the case, in order that it may prove of service to some brother hereafter who may be so unfortunate as to meet with an equally unscrupulous and vicious customer.

On the second day of February, 1869, I was hastily summoned to the Colored House of Refuge, to attend a man who had, while painting the house, fallen from the second-story window upon the stone pavement beneath, about twenty-five feet distant. His fall had been somewhat broken by his lighting first upon the railings and then being thrown off upon the ground. I found him bleeding profusely from a lacerated wound of the scalp, and groaning piteously from pain about the right hip, on which the force of the blow appeared to have been spent. My first duty was to arrest the hemorrhage from the head. On examination, I found no fracture of the skull; and consciousness was perfect. On next proceeding to examine the condition of his hip and leg, so great was the agony expressed on the slightest movement of the limb, that I desisted from further attempts, until I could have him removed to his own home, where I might etherize him, and so institute a careful

and thorough examination. I accordingly had him placed in a covered spring-wagon, upon a bed, and thus conveyed to his residence, some three miles distant. I preceded him to his house, in order to be prepared for his arrival, where I had a bed made ready for him in a lower room. After a complete anaesthesia, I was able to make a thorough exploration of his limb. To my surprise, I found neither fracture nor dislocation, although I examined him most carefully. On drawing the limb down, there was neither shortening nor lengthening discovered; neither inversion nor eversion of the foot; and on rotating the thigh, with one hand on the hip-joint, there was not the slightest crepitus. In fact, there was an entire absence of all the symptoms of either fracture or luxation about the hip. The shaft of the femur was likewise uninjured. The case was simply one of excessive contusion about the great trochanter, in which the muscles and nerves suffered primarily, but which, as will be seen, subsequently resulted in some shortening of the limb. I had the patient carefully placed in bed, upon his back, and kept at perfect rest. Anodyne lotions (lead-water and laudanum) were at first kept constantly applied to the hip, which continued extremely painful; and subsequently slightly stimulating and anodyne applications were made. Under this treatment, the man began slowly to improve; his pain diminished, though the swelling about the hip did not entirely disappear.

Three weeks after the accident, feeling anxious lest possibly I might have made an error in my diagnosis, and lest there might be, after all, a fracture of the neck of the femur, I asked my friend Dr. D. Hayes Agnew, Surgeon of the Pennsylvania Hospital, to see the patient with me, which he kindly consented to do. Together, we again instituted a most critical and searching examination, by all the methods known in surgery. The man was laid upon his back, and his legs carefully measured, both by comparing them with one another, and also by the tape-line. Then, rotation of the thigh was practised, one hand being held over the joint, in order to discover any crepitus, as well as to notice the arc described in the movement of the trochanter. Next, he was made to stand upon the sound limb, and to swing the affected one to and fro. From all these various means employed, Dr. Agnew arrived at the conclusion that there was certainly no sign of either fracture or dislocation, thus confirming my own original diagnosis, that it was simply a case of contusion of the hip. I continued to visit him until May 10, a period of just fourteen weeks, seeing him every day during the first week, and subsequently less frequently,—making him, in all, twenty-one visits. About a week before I ceased my attendance, I permitted him to walk about on crutches, which he was able to do with considerable facility, although he could not put his foot to the ground without still feeling pain in the hip-joint.

I heard nothing more of this man until the month of August following, when I was rather astonished at receiving a note from an attorney, apprising me that my quondam patient, who I was fondly imagining was cherishing grateful recollections of my kind attentions (for he has never paid me a farthing for my services), had commenced a suit against me for damages, for causing him to have a shortened limb; alleging that this had resulted in consequence of my want of skill and attention to him! I soon satisfied this legal gentleman that there were no grounds for an action, when he at once abandoned the case. About a week afterwards, I received another similar missive from a *second* attorney. This gentleman likewise threw up the case, as soon as I convinced him of the absurdity of the allegation. But, what was most extraordinary, my friend Dr. Agnew, who only saw the patient once in consultation, and who did nothing but—what my learned counsel

* The case of Walsh *vs.* Sayre, lately decided in New York, is of equal atrocity with the present one. Dr. Lewis A. Sayre, an eminent surgeon of that city, was sued by the father of a child for an alleged malpractice in having caused lameness of one leg by opening the hip-joint by mistake, when making an incision into an abscess near the joint. A tedious and vexatious trial ensued, in which the doctor was triumphantly vindicated from the malicious and unfounded charge. Not only was a verdict rendered in his favor, but an allowance of five per cent. of the amount of damages claimed by the plaintiff (\$20,000), together with an extra allowance for costs and disbursements,—making, in all, the sum of thirteen hundred and fifty-nine dollars and seventy cents (\$1359.70),—was adjudged to the defendant.

† We expect to print this charge at length in our next number.—ED.

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tersely observed in his cross-examination of the plaintiff—"measure his legs," was also sued at the same time, by our aggrieved patient! We heard nothing further from our friend for about six months, when we received a notice through a *third* attorney that our cases would now certainly be pushed to a trial. In the mean time, however, still another member of the legal profession—the *fourth*—had been consulted, who, on hearing the circumstances of the case, wisely declined having anything to do with it.

Dr. Agnew's case was the first called up, in May last; but it was postponed. My own case, after having been also postponed at the plaintiff's request, was tried on the 17th and 18th of October last. I had never seen the man Haire since May, 1869, a period of more than seventeen months. He undoubtedly had, when I saw him in the court-room, some shortening of his limb; and the testimony of several surgeons who had examined him about a year after his accident, was that shortening did exist at the time of their examination. But there was not one of the medical witnesses for the prosecution, who would, or could, say that *this shortening was the result of a previous fracture of the neck of the thigh-bone*; they all unhesitatingly admitted that the shortening might be very properly accounted for by *an interstitial absorption of the neck of the bone*, occurring as the result of the contusion of the hip.

This was the ground which I took in my defence. I denied that there had ever been a fracture; in which opinion I felt fortified, both by my own original examination of the joint, and still more by the subsequent very careful and exhaustive examination of Dr. Agnew. I contended that the shortening of the limb was the result of the interstitial absorption of the neck of the thigh-bone, caused by the violent contusion of the trochanter, inasmuch as it did not show itself *for several months after the injury*. I was fortunately enabled to sustain my position, not only by appealing to the experience of my own medical witnesses,—the most distinguished surgeons and professors of our city,—but also by numerous morbid specimens, which completely illustrated my case, and which were so clearly exhibited by the defence, as to be perfectly intelligible even to the jury. I was also, happily, enabled to appeal to some very striking cases of a similar injury (contusion), recorded by Mr. Gulliver in vol. xlvi. of the *Edinburgh Med. Jour.*, 1836, and also to the valuable lecture of Mr. Paget, in *Brit. Med. Jour.*, Feb. 19, 1870, both of which may be consulted with advantage as throwing much light on this often obscure point,—"the cause of shortening of the leg as the result of direct injury to the hip."

The able charge of the judge reviews the whole ground. The well-established point of law, that an action for malpractice can be sustained only by proving a want of ordinary skill and of attention on the part of the defendant, is prominently reaffirmed; and the proofs of the contrary in the present case, are clearly set forth. The scientific portion of the defence is also sufficiently elucidated and dwelt upon. After a clear expression of his own convictions from the testimony given, the judge sent the case to the jury, who, without leaving their box, returned a verdict for the defendant; the costs to be paid by the plaintiff.

I feel under the deepest obligations to all my professional brethren, who have so kindly sympathized with and sustained me in this vexatious case. To my friends Professors Gross and Agnew, and Drs. Brinton, Levis, and Packard,—all eminent surgeons, connected with our largest hospitals,—and likewise to Drs. Duffie, Hurst and Schrott, who, though called by the plaintiff, really rendered me most valuable aid in the cross-examination by their candid and lucid statements, I owe especial thanks.

I will only state, in conclusion, that I regarded it as a matter of principle, and as a duty which I owed to the profession, fearlessly to meet this lawsuit, which I might easily have avoided by listening to the base proposals of the plaintiff's counsel to pay black-mail. I felt that the honor of our common profession was on trial; and I cannot but congratulate my brethren, as well as myself, that the victory was won.

THE APPLICATION OF LOCALIZED MOVEMENTS

TO THE TREATMENT OF CERTAIN FUNCTIONAL NERVOUS DISORDERS.

BY WM. R. FISHER, M.D.,
of New York.

In the *New York Medical Record* for August 15, 1870, there appeared an article, by Dr. Chas. F. Taylor, on the therapeutic value of the "Localized Movements." The author therein explained that this mode of treatment is capable of responding to distinct indications by two methods of application: the one, psychological in its action, general in its effect, acting as a remedial agent through the cerebro-spinal and sympathetic nervous systems; the other, more purely mechanical in its nature, productive of results by its local influence in the establishment of physiological processes through the muscular and vascular systems, and thereby promoting nutritive changes in the special regions submitted to its action. While the latter would, at first sight, seem to give promise of a wider range of usefulness in the treatment of deformities, stiffness of the joints, certain forms of paralysis, constipation, dyspepsia and kindred affections, still the writer devoted the bulk of his paper to the exposition of his views upon the greater utility of its employment in combating many forms of functional nervous derangement which present themselves to the practitioner, especially among female patients. He believes that the manifestations of disorder in the nervous system, which are so prominently developed in many varieties of uterine affection, "spinal irritation," hysteria, and so-called nervousness, are very often due to a subordination of the muscular and organic functions to the nervous, and that as health is dependent upon the maintenance of an equilibrium between these, so a derangement which brings about an exaltation of the one at the expense of the other demands the repression of that which may be exerted in excess, and the development of that which is in abeyance. Hence he concludes that the proper treatment for conditions of the system characterized by excessive nervous irritability with corresponding depression of the muscular powers must be found in means which tend to elevate the latter to the position in the economy which they maintain in health, and this, he believes, can be more surely and easily effected by the "movement cure" than by any other method which has hitherto been employed.

The limits of the paper to which reference is now made necessarily precluded any attempt at illustration by cases of the principles which the writer endeavored to elucidate, and my purpose, with this brief summary of its main points by way of introduction, is to give some examples of the practical working of the system. But an attempt to point out all the varied conditions of the body in which this treatment may be advantageously employed, with the indications for its use and the methods of its application, would require far more space than can at present be commanded; and I shall therefore confine this article to the consideration of a group of functional nervous affections, which are of common occurrence in practice, under various names, and which was first de-

scribed by Dr. Taylor in the *Journal of Psychological Medicine* for April, 1868, under the title of "Carnomania." The symptoms which are presented in this class of disorders do not arise from any peculiarity in the mental constitution or condition of the patient, as has sometimes been taught and is very generally believed, but depend entirely upon local or general derangement in the body: "It is the body which sends false or perverted impressions to the mind, and not the mind which imagines falsely concerning the body." And the distinguishing feature in each variety is a modification of perception and volition (using these terms in their widest significance, to indicate the faculties of receiving and responding to impressions), by which these functions are perverted, impaired, or exaggerated. "Carnomania" was proposed as a term under which the various pathological conditions presenting these characteristics might be collected.

The following case, being pure and uncomplicated, will begin the series which are to be quoted:

Case I.—A strong, hearty gentleman, whose temperament was decidedly opposed to the "nervous," had suffered from necrosis of the head of the tibia, which in recovering had left a semi-flexed knee, and, as a consequence, an almost useless limb. Distinguished surgeons had declared this position to be due to anchylosis, and incurable; but an examination failed to sustain their opinion. The hamstring muscles were found to be strongly contracted, and there was a partial dislocation backwards of the bones of the leg from muscular spasm, which had existed during the progress of the inflammatory disease, but there was no evidence that extension could not readily be effected. An appliance was therefore employed to overcome the resistance of the contracted muscles, and the leg was soon straightened. It was found, however, that the ability to use the limb was no greater after this had been accomplished than before. The muscles were somewhat atrophied from disuse, but there was no lesion of sufficient magnitude to produce the total absence of motor power which the case presented, and there was no alternative to the supposition that the inability to walk was merely an evidence of a loss of consciousness of power in the limb. This opinion was therefore communicated to the patient, and treatment was at once employed to restore the impaired perception by means of certain movements, which will be described elsewhere, with the object of directing volition to the useless muscles. A steady persistence in this direction, in course of time, restored to the limb its normal powers; and the gentleman has for several months been conducting with ease an active business in Chicago, which requires him to pass much of his time on his feet.

In our orthopedic practice such cases are frequently met with, in which a limb that has been rendered powerless for a time by disease fails to impress the consciousness with the sense of returning power after the removal of the paralyzing cause, and persistent lameness results. The mind does not take cognizance of a restitution of power, and hence volition is not directed to the execution of muscular action. Many of our patients who present this peculiarity are little children, in whom its existence cannot be ascribed to any influence of the imagination; and the uniform success which attends the method of treatment we have indicated, supports emphatically the correctness of the view upon which it is based.

The following case is a remarkable illustration of perverted perception and volition, giving rise to a localized increase of muscular power in a condition of spasm:

Case II.—In January, 1868, a young lady of superior intellectual development, an authoress of considerable reputation, while walking with a gentleman, slipped and fell towards the ground, with her left arm extended. She was unable to tell whether her hand touched the ground or not; but, as she did not lose her hold upon the arm of her companion, it is certain that no direct injury could have been inflicted by the fall, nor did any symptoms arise at the time to alarm her. On the fol-

lowing day, however, her left arm was numb and powerless, and for six weeks it remained in the same condition. About this time it improved somewhat, and, though at intervals it was subject to attacks of diminished motility without apparent cause, it advanced considerably towards a state of normal power during the next three months. In July a sister was attacked with typhoid fever, and, in consequence of the anxiety, loss of sleep, and confinement to the sick-room while nursing her, Miss A. became completely exhausted. As she approached this state of prostration, her left shoulder-joint began to become stiff and painful, and as the condition advanced it assumed a perfect rigidity. After trying a variety of treatment without any benefit, she applied to Dr. Taylor, in October, 1868, for advice. Her arm was confined to her side by muscular spasm, and the shoulder was considerably elevated by contraction of the trapezius; the deltoid was somewhat atrophied, and the limb presented many of the features of a subluxation. A careful examination, however, showed conclusively that such was not the case. She was placed under the influence of nitrous oxide gas, and the limb was moved freely in every direction, and this operation was repeated four times, at intervals of a few days, in the hope that by stretching the fibres of the contracted muscles their tonicity might be so far overcome as to prevent the recurrence of spasm. But this procedure, which in similar cases had resulted favorably, seemed in this instance to aggravate the difficulty. She was then subjected to passive movements of the limb, but with the same unfavorable effect; and both were soon abandoned for an opposite course of treatment. As the patient was a woman of more than ordinary intelligence, Dr. Taylor explained to her at some length the reasons for his opinion that the tonic spasm which had existed for so long a time in the muscles inserted into her left arm, was not in any way dependent upon a lesion, as she had been led to believe, but was simply the result of perverted perception and volition. She was amazed at the novelty of this statement, but readily acquiesced in its plausibility, and a plan of treatment was instituted with the view of correcting this abnormality by means of the unaffected arm. Several times each day her arms were slowly and gently raised together, and she was told to disregard the left one entirely, but to pay particular attention to the right, and to restrain it whenever it was observed to rise in advance of the former; her mind being kept in a state of close attention by the doctor's constant admonitions. The results of this treatment in a few days sustained in a most satisfactory manner the correctness of the opinion which had been expressed, for she was entirely relieved. During the past spring, however, she has again been subjected to a prolonged mental and physical strain by the illness and death of her father, and decided symptoms of an impending return of the former rigidity and pain have shown themselves in the left shoulder. But on this occasion she comprehended the nature of the difficulty, and mental diversion, with horseback exercise, has again removed it.

This patient presented none of the evidences of hysteria, as it is usually described and spoken of, and it is difficult to account for the phenomena in her case, except by attributing to a perverted perception and volition a large share in their evolution and continuance. The repeated extensions of the muscles under an anaesthetic were useless, because by them the necessary modification of the abnormal functions was not attained, and they were positively injurious, because through their employment the attention of the mind was more firmly fixed upon the part affected; and the same is true of the passive exercises which were used. But by the course of treatment which ultimately proved successful, the attention was withdrawn from the rigid muscles to those of the healthy arm, and complete relaxation followed. It is not necessary that in similar cases the plan which was employed in this should be rigidly adhered to; for any means which will produce a powerful impression, even though applied at a remote point, may accomplish the desired object. The chief indication to be answered is the diversion of volition, and any treatment which responds to it is legitimate.

There is a class of cases bearing a close resemblance

to the foregoing examples of excess and diminution of the sense of muscular power, which is frequently met with in surgical practice.

Case III.—A young lady, in the summer of 1864, sprained her ankle, but continued to limp about for three weeks, in spite of the pain and annoyance which she caused herself. The injured part, however, became worse instead of better, and she was obliged to resort to crutches in order to move about. But still recovery did not take place, and every subsequent attempt to walk was attended with swelling and severe pain in the joint. She resorted to a variety of methods to procure relief; but counter-irritation, pressure, rest, etc. were alike unavailing. Four years after the reception of the injury she came to our office on crutches for consultation. An examination failed to reveal any evidences of existing injury to the joint, and, beyond a slight atrophy of the muscles from disuse, there were apparently no reasons why the foot should not perform its office. A favorable prognosis was therefore rendered, based upon the opinion that her inability to walk was simply due to local functional derangement. She was told that the original injury had long ago been recovered from, but had left behind a hyperesthetic condition of the nerves, which had hitherto prevented her from regaining the use of her foot; and she was made to understand that a well-directed effort of the will would probably be effectual in its removal. Her sister was instructed to flex her foot, and to offer a slight resistance with her hand against its extension, several times each day, gradually increasing the opposing force. In three weeks she returned, and exhibited considerable power in the limb, while the abnormal sensibility was greatly diminished. She was then directed, in addition to the previous treatment, to push with her foot against the wall, and after a few days to rise upon her toes, while supported by her crutches. In six weeks she progressed so far as to be able to give up her crutches altogether; her ankle rapidly regained strength, the hyperesthesia was entirely subdued, and recovery was complete.

There is no doubt that impaired motility and lameness after joint-diseases and injuries of the lower extremities are often due to nervous affections of this character; and the surgeon who is able to recognize their existence as the potential cause of impaired function in a limb, may, by a correct application of proper treatment, restore to a life of usefulness many of his patients who would otherwise be cripples.

(To be continued.)

CONGENITAL MALFORMATION OF THE GENITAL ORGANS.

BY WHARTON SINKLER, M.D.

A MALE infant, aged three weeks, was brought to me at the Dispensary of the Episcopal Hospital in the spring of 1869, with the following malformation of the genital organs, which the mother stated had existed since birth:

The integument of the penis, instead of uniting in the median line on the under surface of that organ, was directly continuous with the scrotum, binding the penis closely down on the testicles, and giving it an extremely odd appearance. With this exception, the penis was normal, and otherwise the child was well developed.

The mother was advised to wait until the child became older before any operation should be performed.

On June 9, 1869, the child being five months old, it was etherized by Dr. E. I. Santee, and I proceeded, with the assistance of Dr. J. H. Packard, at the residence of its parents, to perform the following operation. The skin was dissected up on each side of the penis, for about one and a half inches, the corpus spongiosum and testicles being carefully avoided. The cut edges on the under surface of the penis and on the

scrotum were then brought into accurate apposition by means of the hare-lip suture, a few strips of plaster used to support the whole, and a dressing of dry lint applied.

No retention of urine followed the operation, and in two weeks the cut surfaces were firmly united, without any unfavorable symptom having occurred.

At the present time, the penis presents a natural appearance, although it is somewhat shorter than usual on the under surface, and has a slight tendency to curve downwards while in the flaccid condition; but when in a state of erection it becomes straight, and assumes a position at right angles to the body.

NOTES OF HOSPITAL PRACTICE.

PHILADELPHIA HOSPITAL.

SERVICE OF DR. JOHN S. PARRY.

THROMBOSIS IN A PUERPERAL WOMAN. PNEUMONIA. TEMPORARY AORTIC REGURGITATION. DEATH. AUTOPSY.

ON the 9th of the month, a remarkably strong, healthy-looking girl was delivered in the wards. The child weighed ten pounds and twelve ounces. The labor was very rapid, and the perineum was ruptured nearly to the sphincter ani. At the end of twelve hours sutures were introduced, opium given to constipate the bowels, and the urine drawn off by a catheter. Everything seemed to go well until the sixth day after delivery, when her tongue was furred, face flushed, skin pungently hot, and her pulse full, bounding, and over 100. The axillary temperature was 104° Fahr. At the same time she had a slight hacking cough, without much dyspnea or any pain in the thorax. Auscultation, however, revealed the presence of a crepitant rhonchus in the upper half of the left lung. At the same time, there was some tenderness over the lower portion of the abdomen, and she was delirious at night. These symptoms continued during the ensuing three days, when the temperature had fallen to 100° and the pulse to 96 per minute. The disease of the lung had meanwhile passed on to solidification.

During the succeeding four days she appeared to be doing well, and we believed that convalescence had commenced; but on the 22d she was again seized with symptoms similar to those previously described. The temperature was 104°; the skin was pungently hot, and there was a pneumonic flush on both cheeks, while the cough was increased, and her pulse was about 110 per minute. Her tongue was now dry, and there were sordes on the teeth. Physical examination revealed pneumonia of the right base. The heart-sounds were normal.

On the 23d she complained of pain in the right thigh, and, upon examination, a red, hard, line was found extending up the inner side of the thigh, from the knee to the saphenous opening. The saphena vein and some of its branches were occluded. There was also some tenderness over the lower portion of the abdominal cavity, especially on the right side.

Two days later, we were surprised to find the pulse with all the characteristics of aortic regurgitation, and it was audible when the arm was elevated, while the pulses were distinctly visible in the carotid, temporal, and femoral regions. Upon auscultation there was discovered a very intense aortic murmur, rough in its quality and double. The first sound of the heart was comparatively strong.

She was now excessively weak, and we expected her to live but a few hours; but she survived five days longer, and perished on the 30th of the month. On the second day after its appearance the intensity of the aortic murmur was diminished, and on the third it had entirely disappeared; but the second sound had not reappeared, and the first was weak and muffled, though the woman's strength had materially improved in the interval. At the end she died apparently from exhaustion.

Autopsy.—Fourteen hours after death there was a good deal of lividity of the dependent portions of the body. Rigor

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mortis slight. On opening the thorax, an abscess containing about two drachms of pus was discovered at the left sterno-clavicular articulation. About one inch and a half of the anterior surface of the clavicle was denuded of its periosteum. The upper half of the left lung was adherent from a recent pleurisy. The two lobes were also united by recent inflammation. The whole of the upper lobe and the superior half of the lower lobe were pneumonic, the upper portion of the former being in the third and the remainder in the second stage of the disease.

The lower lobe of the right lung was also inflamed, but had only reached the second stage of the disease, or that of red hepatization. In the upper lobe of this organ (the right), there were three or four nodules of inflamed tissue likewise in the second stage. These varied in size from half an inch to one and a half inches in diameter, and upon section presented the usual appearances of pneumonia in this stage of its progress. The lungs were everywhere entirely free from tubercles.

Heart.—Size normal. Valves entirely competent and healthy, except two or three minute spots upon the aortic leaflets, which had the appearance of commencing atheromatous degeneration. The left ventricle contained a large, dense, decolorized coagulum, which was so firmly attached to the interior of the organ that the heart could be lifted from the table by taking hold of the clot. It was continuous with a smaller coagulum in the auricle, and extended from the ventricle along the aorta a little beyond its arch, effectually destroying the functions of the aortic valves. The right ventricle and auricle contained a similar mass, which passed a long distance into the pulmonary artery. When it was withdrawn it formed a cast of that vessel.

The abdominal organs were healthy. The uterus presented the appearances usual at this time after delivery. There was no disease of the sinuses, nor were there any evidences of either pelvic cellulitis or pelvic peritonitis.

The right iliac vein contained two large decolorized coagula, which were loose and movable in the vessels, the walls of which were not thickened or inflamed. The walls of the femoral vein were also healthy. At the point where the saphena vein emptied there was a large, dense clot, nearly an inch long, projecting into the femoral vein. This was composed of two parts. The outer thin membranous portion was easily removed, when the central mass separated into a number of long, slender coagula, some of which were united in such a manner as to show that they had been formed in the saphena vein and its branches, and that they had only lodged at the point where they were discovered.

The coats of the saphena vein and some of its tributaries were much thickened, injected, and entirely occluded by coagula, which had begun to soften in the centre. This condition extended down to the knee.

We regret very much that the lungs were not more carefully examined in this case. The coagulation of blood in the pulmonary artery was certainly very extensive, and I feel convinced that the inflammation in upper lobe of the right lung had its beginning in embolism, but am by no means certain that the disease on the left side was due to such a cause. It pursued a very irregular course, however, for simple acute pneumonia. The temporary aortic regurgitation was the most interesting feature of the case. About the nature of the sound I have no doubt. It was carefully studied by my colleague, Dr. Duer, and he fully confirmed the original diagnosis. The audible pulse was most perfectly developed, and disappeared with the murmur. I have never met with this in any other condition than that of aortic incompetency, and believe it to be always present in that disease. I am confirmed in this opinion by a large number of post-mortem observations.

GUARANA.—The active alkaloid of this (Guarantine of Dr. T. von Martius) has been shown by Stenhouse (M. C. Cook, M.A., *Pharmac. Journ. and Trans.*, September 17, 1870) to be Theine. The drug contains 5.07 per cent. of the latter,—twice as much as black tea, five times as much as coffee. The drug is largely prepared in Brazil by the Indians, and on the Rio Negro has been sold as low as a penny a pound.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROFESSOR GROSS.

Reported by James Graham, M.D.

COMPOUND DEPRESSED FRACTURE OF THE SKULL.
TREPHINING.

WILLIAM MITCHELL, 9 years old, was brought to the clinic on the 8th of October, by his father, Dr. Mitchell, having the day previous been thrown from a horse, lighting on his head. His father, on picking him up, discovered a wound about an inch in length, extending from a short distance above the left eyebrow upward and outward; it was attended with fracture of the frontal bone, with marked depression. The boy was not stunned by the fall, and he bore the journey—undertaken almost immediately after the accident—to the city, a distance of 160 miles, without any apparent suffering or injury.

Professor Gross, on examining the parts, found the condition described above, and, in consultation with his colleague, Professor Pancost, decided to trephine. Chloroform having been administered, he enlarged the wound, and removed a disk of bone, with a small trephine, from the outer side of the depression, and restored the bone to its natural level. The dura mater at the site of injury was somewhat injected, but perfectly sound in other respects. The parts were brought lightly together by suture, and covered with a wet compress secured with a bandage. At 8 P.M., six hours after the operation, the patient was restless, his pulse excited, and his skin hot and dry. He was taking hydrarg. chl. mitis, grs. iij, with pulv. jalap, grs. vj, every three hours, and a febrifuge composed of sp. mindereri, sp. etheris nit., tr. verat. virid., and deodorized tr. opii.

Six foreign leeches were applied to the left temple at midnight, and gave him decided relief; his bowels had been freely purged, and he rested well after the bleeding. During the following day he was comfortable; his diet was restricted, and senna and sulphate of magnesia were substituted for the calomel and jalap.

He continued to do well until the 14th, when his father, on account of urgent professional engagements, was compelled to take him home. Fortunately, no ill effects ensued; on the contrary, he continued steadily to improve, and is now, nearly two months since the accident, entirely well.

Professor Gross, in commenting upon the operation of trephining, alluded to the disfavor with which it is at present regarded by military surgeons, and then alluded to his own convictions that its danger, in ordinary cases and in persons of good constitution, is greatly overrated. The danger of allowing a depressed bone to remain in its unnatural situation was, he said, twofold,—immediate, from inflammation, and remote, from epilepsy and other bad effects. This is especially true of small, depressed fractures, which, by their pressure upon the brain and its membranes, nearly always induce inflammation, not unfrequently terminating in death in a few days. When the pressure is widely diffused, the danger, other things being equal, is comparatively slight. In punctured fracture the danger is proverbial. Children, from the peculiar susceptibility of the nervous system, are particularly prone to suffer from epilepsy and other nervous symptoms on recovering from the immediate effects of such injuries, where the bone is permitted to retain its depressed situation.

Great stress is properly laid upon the after-treatment in injuries necessitating such an operation. The head and shoulders should be kept constantly elevated; the hair should be cut off close, and the scalp covered with a bladder partially filled with ice; light and noise should be excluded from the apartment; the diet should be restricted to the smallest allowance; the bowels should be freely evacuated with calomel and jalap or senna and Epsom salts; and if headache, accompanied by high fever and restlessness, arise, blood should be taken freely, by leeches, from the temples or behind the ears, or even from a vein at the bend of the arm. The old method of treatment after such injuries is too much neglected at the present day; we feed too much and deplete too little.

A patient with fracture of the skull—especially one requir-

ing the use of the trephine—should consider himself for a long time an invalid, avoiding all excitement, both of mind and body, observing great care in his diet, and keeping his bowels constantly in a soluble condition. From want of proper precaution, many a person has lost his life from the effects of inflammation of the brain, weeks and months after all danger was supposed to have been safely passed.

CYSTIC TUMOR OF THE LOWER JAW, WITH GIANT-CELLED ELEMENTS.

James H. B., 14 years of age, of Chester, Pa., came to the clinic on the 12th of October, on account of enlargement of the lower jaw of from two to three years' duration. His chin was a little prominent, especially on the left side; and on opening his mouth, the bone was seen to be expanded, thereby forming a tumor of ovoidal figure and of regular outline, extending from the canine tooth of the right side to the first molar of the left. The alveolar border of the growth was soft, and crackled like parchment when indented. The gum was natural in color; he had lost several teeth over the tumor, and the remaining ones were loose. No cause could be assigned for its appearance; it was devoid of pain, except a slight aching during the last three weeks; its progress had been slow, but within the past three months it had about doubled itself. His grand-aunt died of cancer of the breast.

Having diagnosed a cystic tumor, Professor Gross made an incision into it on its anterior surface with an ordinary scalpel, and a thin, brownish fluid escaped. There was a large mass of a substance resembling fungous granulations attached to the inner wall of the cyst, which was scraped away with the chisel. The operation was attended with profuse hemorrhage; but it was promptly controlled by plugging the cavity with cotton wet with Monsel's solution.

The central portion of the mass bore a suspicious resemblance to encephaloïd, and, on microscopic examination by Dr. W. W. Keen, he found "the small scraps of the central portion of the tumor, which were gouged out, looked exactly like the heart's muscles, and were scarcely less dense. When teased out, 'myeloplaques,' or 'giant-cells,' or 'multi-nucleated' cells, were seen. The giant-cells formed, probably, the fourth or fifth of the entire mass, and were very remarkable for their bizarre forms and numerous prolongations or processes. The number of nuclei was from ten to thirty, and nearly all possessed one, and often two, brilliant nucleoli."

"The spindle-shaped and other forms of caudate corpuscles, and round or ovoid cells, constituted the remainder of the mass. These, also, were generally nucleated and nucleolated. Scarcely any intercellular tissue was observed, and fatty granules were very rarely found to any extent, save in two or three places. So far as could be judged without injection, the mass was not very vascular."

The plug was allowed to remain for several days, until it had become loosened by suppuration, when it was removed, and a piece of patent lint wet with sweet oil was substituted. After a few days, the tents were dispensed with, and the cavity was then syringed out every few hours with a weak solution of permanganate of potassa. There was a little erysipelas after the operation, with difficulty in swallowing and a circumscribed hardness beneath the chin; but it disappeared under the usual treatment, and he was discharged, feeling quite comfortable, on October 26.

He reported at the clinic, on November 5, in good general health, and with the cavity in the jaw much diminished in size.

NEW ALKALOIDS OF OPIUM.—O. Herse states that he has succeeded in demonstrating the complexity of the porphyroxine of Merck, and obtaining from it five alkaloids, which he denominates lautopine, meconidine, codamine, laudanine, and *x*. Codamine and laudanine are homologues of morphia and codeia. Lautopine is the superior homologue of papaverine. The method of preparation and chemical history are given in detail; but want of space forbids a more copious abstract. The original paper is to be found in *Annalen der Chem. und Pharm.*, vol. cliii. p. 47; an abstract is in the *Pharmaceutical Journal* of London, Sept. 1870.

ON DEATH FROM CHLOROFORM. (*Medical Times and Gazette*, July 23, 1870.)—In this clinical lecture, Dr. B. W. Richardson claims that there are four ways in which chloroform causes death: namely, by—1. Syncopal apnea; 2. Epileptiform syncope; 3. Paralysis of the heart; 4. The combined depression of chloroform and surgical shock.

Death from the first cause occurs within the minute after the commencement of the inhalation: by the action of the vapor on the peripheral nervous system, respiration is suspended for an interval, there is accumulation of carbonic acid in the blood, irritation of the vagus, and arrest from the irritation, by virtue of the inhibitory function of the nerve, of the action of the heart.

The second class of deaths occurs in those in which the second stage of narcotism—the rigid, excited stage—is severe and prolonged. All the arteries share in the muscular excitement, and by their intense contraction force all the blood into the venous system, and hence syncope occurs from want of arterial blood.

Deaths of the third order occur only when the action of the narcotic has been slow and long continued, and has finally resulted in general muscular paralysis, in which the heart partakes.

In speaking of deaths from the combined effects of chloroform and surgical shock, Dr. R. details some curious observations made by himself upon this point. Thus, in a case of breaking up of old adhesions of the knee-joint, the patient being profoundly narcotized, he noticed abrupt momentary cessation of the heart's action immediately following each effort at forcible extension of the knee, and this upon several different occasions.

In the latter part of this lecture, Dr. R. speaks of the best method of resuscitating patients apparently dead from chloroform inhalation, and recommends, as the result of a large series of experiments upon animals, absolute quiet of the body, avoidance of use of electricity, and artificial respiration, kept up by means of the double-acting bellows, described by him in the previous volume of the journal.

He thinks every private and public operating-table ought, by all means, to be provided with one of these as a permanent fixture.

INFLUENCE OF EXERCISE ON ELIMINATION BY THE KIDNEYS.—In the October number of the *New York Medical Journal* we find some interesting experiments by Prof. Austin Flint, Jr., made upon the pedestrian Weston last May, with the view of testing the influence of excessive and prolonged muscular exercise upon the elimination of effete matters by the kidneys. Mr. Weston walked one hundred miles in less than twenty-two hours, in an inclosure in New York City, and the urine passed in that time was collected in one vessel, and afterwards compared with urine subsequently passed when he was at comparative rest. The experiments are, therefore, not so valuable as they might be, for they were made with solitary specimens, and may not be confirmed by further observations. Prof. Flint found the quantity of water in the urine immensely greater during exercise; the amount of urea largely increased—as much as from 75 to 100 per cent., after making due allowance for the effect of diet; the proportion of chlorides but little affected; the sulphates considerably increased; the phosphates quadrupled; and the uric acid augmented by about 78 per cent., although the proportion per fluidounce was less than in repose. His conclusion is that excessively severe and prolonged muscular exertion increases enormously the amount of nitrogenized excrementitious matters in the urine, particularly the urea, and produces a corresponding increase in the elimination of most of the inorganic salts.

DR. BROWN-SEQUARD (*London Lancet*, p. 486, Sept. 24), at the recent meeting of the British Association for the Advancement of Science, reported the results of some interesting experiments on the brains of different animals, tending to show that the right side of the brain was more important for organic life than the left side, and that, although the two sides of the brain were precisely alike when the animals were born, by greater development of the activity of one side it afterwards became quite different from the other. He showed also that epilepsy induced in the guinea-pig could be transmitted to its offspring.

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EDITORIAL.**THE CAUSE OF THE SICK AND WOUNDED
IN FRANCE.**

THE surgeons and physicians in civil life in France have, from the commencement of hostilities, shown a zeal which does them honor, in promptly volunteering their services in behalf of the sick and wounded. Senators and government officials, proprietors of palaces, press-editors, and representatives of great corporate institutions, have vied with each other in efforts to provide for the hospital accommodation of the soldiers. Early in July we find a pompous proclamation from the International Aid Society: "War is declared! Every Frenchman should aid his country according to his ability," etc.; and the committee appeal to the devotion and patriotism of civil physicians, and invite those who wish to serve in the volunteer ambulances to register their names. It further expresses the hope that the *Intendance*, instructed by the Crimean and Italian campaigns, will interfere less, and will respect the excellent example of the United States, and leave the direction of surgical affairs to men whose special studies have qualified them in questions relative to the hygiene and treatment of the soldier. Thereupon M. Ferrand, of the *Union Médicale*, advises that a Committee of Medical Reserve be formed, a list being opened at the bureau of that journal, remarking that private practitioners may relieve the military surgeons of their onerous duties by operating after great actions, a task which they ordinarily undertake with complacent alacrity. On July 23, the possibility of an invasion of France seems not to have been surmised. The following week a committee of editors, headed by Girardin and Tarbé, of the *Gaulois*, invite subscriptions to fit out the "Press Ambulance Corps." The International Aid Society asks for contributions of money, medicines, etc. Dr. Evans, the dentist, invokes Americans in Paris to open a subscription in aid of the sick and wounded, and presents the committee with an extensive collection of articles used by the United States Sanitary Commission during the American civil war. M. Chenu publishes an article on the numerical insufficiency of the medical staff. In the French army, besides the regimental medical officers, two or three to a regiment, there are attached to each army corps five ambulances, or what we should term five parties of staff-surgeons with field outfits. One is attached to the corps

headquarters, and one to each of the four divisions composing the army corps. There are five medical officers for each ambulance, or twenty-five to a corps. M. Chenu thinks this number should be doubled or tripled, if possible, and laments that "the scenes after Magenta and Solferino" seem not to have opened the eyes of the administration. The Institute of France has accorded to M. Chenu its grand prize for his surgical statistics, completed in 1869, of the Franco-Austrian war of 1859. M. Bonnefort prints a pamphlet in the interest of the regular medico-military staff, and points out the want of system, extravagance, etc. of the volunteer aid societies.

The *Union Médicale*, on August 13, recommends the organization of a special surgical staff in each *arrondissement* of Paris, and a few days subsequently announces that such associations have been formed, that bedding, lint, and money are pouring in, and that over one hundred and fifty hospitals of from ten to eighteen beds have been fitted up in the twelve *arrondissements*; and all this without the cost of a sou to the government. The hospital of the Press Association is to be attended gratuitously by MM. Demarquay, Guérin, Cloquet, Béhier, and other dignitaries of the Academy of Medicine; the Archbishop of Paris is chief almoner, and the Brothers of the Christian Schools are to serve as nurses. The Dominican nuns at Neuilly offer their fine convent, and to provide thirty beds. Donors of bedding are informed by the committee that iron bedsteads alone will be accepted. The senators had given up the Luxembourg palace, and subscribed for three hundred beds, each senator giving one thousand francs. M. Nélaton had general direction of this hospital, and MM. Boyer and Paul, physicians to the senate, had fixed their residences at the palace, to be near the patients. An excellent hospital of thirty beds was established in Madame Chabrier's hotel, Rue de Trevise; another, much larger, in Andrée's great hotel in the Rue du Faubourg Poissonnière; a third, chiefly by the efforts of M. Coquart, upholsterer, in the Rue des Petites-Ecuries; and a fourth in the house of the parish priest.

A hundred surgeons and nurses, at Lyons, were organized, ready to go at any moment to the field, to make needful dressings and operations, and to return, so as not to encumber the army. But they were to have no military costume, no horses, no supply-wagons; a forage-cap and chevron, with the red Greek cross of the Geneva Convention, an operating case, and a hospital knapsack, constituted the outfit. On August 22, a party of Neapolitan surgeons, declining all emolument, and twelve Swiss surgeons of the federal army, left for Marshal McMahon's camp. The French editors are not displeased to know that "dysentery and typhus are not the only diseases prevailing in the Prussian army. On account of their forced marches and uncleanliness, the Prussians rarely remove their shoes and socks, and foot-soreness is almost universal among them. On account of the lymphatic temperament of our enemies, these affections assume almost immediately such gravity as to necessitate absolute rest." A

correspondent informs the editors that the majority of the Prussians are affected by cholericiform diarrhoea. In spite of these embarrassments, however, the Germans were able to move as far as Strasbourg, Sedan, Metz, Orleans, and Paris. Towards the end of August, an English red-cross benevolent society sent five hundred pounds each to the presidents of the International Aid Societies at Paris and Berlin, and six surgeons, headed by Dr. Mayo, the expenses of the delegations being defrayed by the society. The Italian colony in Paris fitted up a large hospital for the wounded, and accumulated a large fund by subscription. On August 27, several public buildings were turned over for hospital purposes, and converted into an immense hospital, under the direction of M. Ricord, who received daily, at three o'clock, physicians and surgeons desiring to volunteer to take charge of the wards. The Minister of State writes to the Minister of War that he will relinquish his hotel in the Rue de Grenelle for the use of the wounded. The free school of the Immaculate Conception, with its seven hundred beds, a well-furnished pharmacy, kitchen, etc., is next offered; MM. Maisonneuve, Bacquoys, and others volunteering as surgical attendants.

The *Moniteur Universel* complains bitterly of the treatment of French surgeons captured at Schafbuch, up to the time of the arrival of Prince Frederick Charles, when they were permitted to rejoin their corps; but adds that as soon as his back was turned his generals imposed on them the most severe and onerous duties, at Wissembourg, Woerth, and Reichshoffen, and then, depriving them of their surgical instruments, sent them into Belgium. The corps of surgeons sent to the field by the Press Association were captured, according to the *Gaulois*, at Saarbrück, and, after many tribulations, returned through Brussels to Paris, under guidance of Dr. Marc Sée. A superior medical officer, M. Milliot, was killed while extracting a ball on the field. Dr. Queyriaux suggests, as a novelty, the use of oakum as a substitute for charpie. On September 10, the *Gazette Médicale* announces that, from circumstances beyond its control, its publication must be suspended.

Our latest advices from the French capital are those contained in this number. We find here a variety of hasty memoranda by busy men: so many wounded, such and such operations done, etc. etc. We note but little statistical information that can be regarded as reliable, and but few facts of special significance to the student of military medicine and surgery. The arrival at Versailles of those wounded at Reichshoffen is referred to, as well as the return of a dejected party of volunteer surgeons from Saarbrück; the reception from Copenhagen of sixteen thousand francs for the wounded, and from Glasgow of dressings and supplies in panniers, to be carried on pack-saddles. Great numbers of private physicians are announced as ready to attend the sick and wounded. Dr. Duchenne offers to use electricity on those who require it. Many private persons offer their hotels and from ten to forty beds. The National Deaf and Dumb Asylum is converted into

a military hospital, and the large buildings occupied by the General Omnibus Company, the National Life Insurance Company, together with many public hotels and government buildings, are appropriated for similar purposes. One of the stock companies had tendered, at the instance of Monseigneur Bauer, not only its splendid house, but had defrayed the expense of erecting temporary pavilions, from designs furnished gratuitously by the celebrated architect M. Gustave de Thoury. The deliberations of the Academy of Medicine and other learned societies were devoted exclusively to questions of military medicine and hygiene, and particularly to the subject of disinfectants. M. Devergier lauded phenic acid as a preservative for dead bodies, and another academician had seen a subject injected with this acid solution, in which there was no unpleasant odor six months after death. MM. Laboulaye and Michel Chevalier, in the *Revue des Deux Mondes*, and M. Lefort, in the *Gazette Hebdomadaire*, have exposed the vices of organization of the medical staff of the army, and illustrated, from experience in the Crimean and Italian wars, the evils of denying medical officers control of their own department; and M. Vidal, a retired surgeon of division, has printed an important paper* on the deplorable results, in the army in Algeria, of the subordination of the surgeons to the *intendants militaires*. But these warnings all came too late, and, in the midst of unparalleled disasters, were comparatively unheeded. It is most gratifying, however, to learn that all that can be accomplished by the utmost unanimity, devotion, and self-sacrifice has been promptly done by the French to prevent the unfortunate victims of the war from suffering from the grave deficiencies of the official army medical organization.

THE MEDICAL CORPS OF THE NAVY.

ACCORDING to existing laws, the number of medical officers on the active list of the navy is limited to eighty surgeons, and one hundred and twenty assistant and passed-assistant surgeons. They are all commissioned officers,—that is, they are appointed by the President, by and with the advice and consent of the Senate of the United States.

The laws provide that no person shall fill the office of assistant-surgeon until he shall have been examined and approved by a board of naval surgeons designated by the Secretary of the Navy. The candidate must be a citizen of the United States, not more than twenty-six years of age, in vigorous health in all respects, and his character as to morality, temperance, and industry without reproach.

The government desires to engage in its medical service only men of the best average intellect and culture, because it considers officers and privates in the navy too valuable to be confided, while sick or wounded, to those who are incompetent or unreliable. To secure

* Paris, Germer Bailliére, 1870, 8vo, pp. 150.

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trustworthy practitioners, the examination is made to include general aptitude for the office,—that is, capacity to readily bring into practice natural qualifications and acquired knowledge in an efficient manner,—literary and scientific attainments, and general information, as well as all the branches taught in respectable medical schools. The scrutiny is carefully and fairly conducted. The examinations are partly written and partly oral, and candidates are afforded opportunities to show practically their knowledge of pharmacy, diagnosis, and "mechanical therapeutics." But, in spite of all this care, it is surmised that individuals of only moderate practical ability are sometimes admitted into the corps.

These, however, may be eliminated, because after five years' service the assistant-surgeon is entitled to be examined for promotion. Then he is required to submit to the board testimonials of his official conduct from those superior officers with whom he may have served. If found qualified, he is styled passed assistant-surgeon. If found not qualified, he is entitled to a second trial after the expiration of one year; and if he again fail, he is dropped from the navy. (*Sec. 8, "Act making appropriations for the naval service for the year ending June 30, 1871, and for other purposes," approved July 15, 1870.*)

The law provides, also, that "no person shall be appointed a surgeon until he shall have served as an assistant-surgeon at least two years on board of a public vessel of the United States at sea, nor until he shall have been examined and approved for such appointment by a board of naval surgeons designated by the Secretary of the Navy."

In case of vacancy in the grade of surgeons, an assistant-surgeon, under this provision of the law, may be examined, and, if found qualified, promoted, after having served only two years at sea. But, in time of peace, vacancies from death, retirement, and resignation are so few that the thirty-one senior surgeons now on the active list served from ten to sixteen years prior to promotion. In the years 1862, 1863, and 1864, during the rebellion, nine assistants were promoted after little more than three years' service. Since that time the period of service prior to promotion has gradually increased until the present date, when it averages about eight years. Only seven surgeons of the eighty now on the active list have been promoted long enough to entitle them to receive the highest rate of pay; the period of their entire service is from thirty-three to forty-one years.

In the year 1824, chiefly through suggestions of the late Surgeons Edward Cutbush, W. P. C. Barton, and Thomas Harris, the qualifications of candidates for admission and promotion in the medical corps were tested by examination, for the first time, under a regulation of the Navy Department. The compensation was very small. It was found difficult to induce respectably qualified practitioners to engage in the naval medical service, or to remain any considerable time after they had entered it. Mainly at the instigation of the late Surgeon

Mordecai Morgan and the gentlemen just named, a law, devised to obviate the difficulty, was enacted by Congress in May, 1828. The compensation was increased periodically with increased periods of service, the system of examinations was established, and the grades of surgeon and assistant-surgeon were recognized in the law. The title of passed assistant-surgeon, which appears for the first time in the Navy Register of 1835, was a creation of the Navy Department, and was not employed in any statute prior to June 1, 1860.

The law provides a rate of pay for assistant-surgeons who remain in the grade more than five years prior to examination for promotion; and also for those who, after they have been examined and found qualified, await promotion more than five years. Though they are styled passed assistant-surgeons, their sphere of official duty is not legally changed. In commission they are still assistant-surgeons.

The increase of annual compensation progressively with every five years' service is exhibited in the following

Table of the Rates of Pay of Medical Officers in the Navy of the United States.

	Waiting orders.	Duty on shore.	Duty at sea.	Retired.
Assistant-surgeons	\$1000	\$1400	\$1700	\$850
Assistant-surgeons, after five years' service	1200	1600	1900	950
Passed assistant-surgeons	1500	1800	2000	1000
Passed assistant-surgeons, after five years' service	1700	2000	2200	1100
Surgeons, first five years	2000	2400	2800	1400
" second five years	2400	2800	3200	1600
" third five years	2600	3200	3500	1750
" fourth five years	2800	3600	3700	1850
" after twenty years	3000	4000	4200	2100
Fleet-surgeons	4400

The office of "surgeon of the fleet," or fleet-surgeon, was created by the act of May, 1828. The law provides that the President may appoint to every fleet or squadron an experienced and intelligent surgeon, denominated "surgeon of the fleet," who, in addition to his duties as surgeon of the flag-ship, shall examine and approve all requisitions for medical and hospital stores for the squadron or fleet, and inspect their quality; in difficult cases, consult with the surgeons of the several ships; and make and transmit to the Navy Department records of the character and treatment of diseases in the squadron or fleet. For these additional services a small addition to his compensation was provided, measured, in every instance, by his length of service. The pay of surgeons was then at a monthly rate, which was increased, at the end of five years' service, five dollars and a ration; the surgeon of the fleet was "allowed double rations while acting" as such. But under the present scale of pay a surgeon of five or ten years' standing receives as much, while discharging the duties of fleet-surgeon, as one of over twenty years' service. The want of distinction in this respect is calculated to invite interposition of political or other extraneous influences to procure for young surgeons the appointment of fleet-surgeon, at the cost of discon-

tent among those seniors who may be in this manner unfairly set aside.

The office is temporary. As there are but six fleets or squadrons maintained, there are only six surgeons of the fleet temporarily employed at the same time.

Officers are placed on the retired list on account of incapacity arising from wounds, injuries, or permanent loss of health incurred in the line of duty; and on attaining sixty-two years of age, whether incapacitated or not.

Paymasters and steam engineers have the same pay and rank as medical officers.

Surgeons of more than twelve years' standing rank with commanders of the line; surgeons of less than twelve years', with lieutenants; passed assistant-surgeons, next after lieutenants; and assistant-surgeons, next after masters; but the precedence which attaches to these degrees of rank is made to yield in the presence of commanding and executive officers of the line of every grade and degree of seniority. So that, in fact, rank is purely nominal, and practically means nothing beyond a right to wear a uniform dress analogous to that of the line grade with which the staff officer nominally ranks. It may be truly said that, in fact, medical officers in the navy have no rank, properly so called. It is said, however, that Congress at its next session may remove this ground of just complaint.

Young gentlemen who enter the navy now may expect to receive the highest rate of pay at the expiration of about thirty years, and, if they remain in a state of celibacy, the means of respectable subsistence in the mean time. Like every profitable vocation, that of the physician requires a pecuniary capital to establish such a business as may ultimately lead to fortune. To those whose means are not sufficient to enable them to maintain a respectable social position while seeking professional employment in private life, the navy offers a certain and respectable career, but without the chances of any considerable accumulation from professional exertion.

This summary will enable our readers to estimate the value of employment in the medical department of the navy, in which there are, we are informed, about fifty vacancies.

THE London agent of our publishers has forwarded to them a letter written by the editor of the London *Medical Times and Gazette*, taking us to task for having appropriated, as he alleges, the name of his journal. The accusation is a singular one. There certainly is a marked difference between "Medical Times" and "Medical Times and Gazette." But, even supposing that there was no material difference in the names of the two periodicals, does the learned editor mean to say that we have no right to select what title we please for our journal? Has he a pre-emption right, as the tenor of his letter would seem to imply, to the word "Times"? One would suppose, from the tone of his remarks, that, like the Emperor of Timbuctoo, he was the Emperor of the Sun, the King of Kings, the

Buffalo of Buffaloes, and the Bull of Bulls. We are sorry we cannot offer our brother editor any consolation in his grievous affliction, and sincerely hope that the alleged offence may not be a cause of war between the two countries.

CORRESPONDENCE.

DERMATOLOGY ABROAD.

LETTERS FROM L. A. DUHRING, M.D., OF PHILADELPHIA.

No. II.

PARIS, June 17, 1870.

HAVING given a short description of some of the leading points of dermatology as existing in Vienna, I now propose collecting a few facts concerning the hospitals of this city, which may prove suggestive. The "St. Louis," which is devoted to the treatment of diseases of the skin, is situated near the Strasbourg depot, and several miles from the centre of the city. It is very old, having been founded in 1644, and, like most of the other charitable institutions of Paris, is under government patronage. The building is a hollow square, with wings thrown out on various sides, and, upon entering the enclosure, presents an imposing appearance. It is the largest hospital extant devoted to skin diseases, the whole, with the exception of two surgical wards, being given to that purpose. There are about twenty skin wards, each accommodating thirty patients, and, supposing them all to be occupied, six hundred patients may generally be found here. This is the only hospital in Paris where such diseases are treated. The wards are long, with high ceilings, the ventilation good, and the minutiae in every respect well carried out. The hospital staff is composed of six gentlemen, viz.: MM. Bazin, Lailler, Hardy, Guibout, Hillairet, and Vidal, each one having charge of four wards, two male and two female, which require daily attendance the year round. They are assisted by their respective "internes," besides three or four aids, who write prescriptions, dress and bandage the cases, etc. Every morning at 8½ o'clock there is an examination by one of the staff, when patients applying at the hospital for admission are seen. If suitable cases, they are admitted; otherwise they are treated as dispensary cases. Each of the staff is on duty one day in the week in the reception-room, or "consultation," as it is called. Here every morning from one to three hundred new cases are seen, casually examined, and cared for. The patients are assembled in a large waiting-room adjoining the reception-room, furnished with benches, and are admitted three or four at a time to the physician with his interne and auxiliaries. Out of the whole number seen, the most important cases are received, according to the number of beds vacant in the wards of the physician examining, and those who cannot be taken in for lack of room are told to return on the morrow. The "consultation" occupies, generally, two or three hours, and certainly no place in the world offers the same amount and variety of material as the St. Louis. On an average, one hundred and fifty new cases may be seen and examined every day, and the most interesting of these are taken into the wards, where they may be studied from day to day, and watched until their discharge from the institution. Yet, in spite of these numerous advantages for study, and the abundance of material always present, the young student of dermatology finds but little inducement

to remain here; for he soon discovers that he is not able to obtain elementary instruction. Without this, of what benefit is it to a beginner to see daily a hundred new cases, or to walk through the wards, taking hurried glances at the patients as he follows the physician from bed to bed? Unable as yet to diagnose the simplest case with certainty, not knowing, perhaps, the anatomy of the skin, and unused to the nomenclature, he is bewildered by the sight of such a mass of material, with no one to give him clinical instruction. Professor Hardy is the only physician at the St. Louis who undertakes to instruct students systematically. During the months of May and June he delivers a course of lectures, and also takes his class through the wards several times a week. For the rest of the year there is no regular instruction whatever, and any one desirous of studying the subject is obliged to ask permission to attend the consultations and accompany one of the staff on his morning visits, thus gaining what instruction he may. How different the state of affairs in Vienna, where instruction is so freely and competently given all the year round, and facilities offered for intercourse with able teachers, who by their own enthusiasm stimulate the student to master his subject! For the beginner in dermatology, Paris is certainly far inferior to Vienna; while, on the other hand, to one who has already made some progress and is fitted to exercise his own judgment, Paris offers great attractions. One of the features of the St. Louis is the scabies cure,—or quick cure, as the Germans call it. Scabies is plenty in Paris all the year round; in fact, no other city contains as much. Nor is it confined to those who frequent the St. Louis, but is widely disseminated throughout the whole city, among the upper classes as well as the poor. Patients come in scores to the hospital, and, on an average, fifty cases of scabies are treated daily. Two apartments supplied with baths are appropriated to it, one for men and the other for women, the mode of treatment being very much as follows: Being collected in the bath-room, they are each marched to a tub, ordered to undress and deposit their clothes, and then walk into the adjoining "rubbing-room;" here they are instructed to rub themselves and each other thoroughly with Sapo viridis, which is in a large pan in the centre of the room. Steam, in moderation, is let into the apartment as they smear and rub themselves with the soap, for the purpose of macerating the epidermis. They rub for twenty minutes, and then return, each getting into his own tub of hot water and soaking for an hour. At the end of this time they are ordered back to the rubbing-room, a jar containing an ointment composed of sulphur, bicarbonate of soda, and fat is substituted for the pan of Sapo viridis, and with this they rub themselves again thoroughly for twenty minutes. This process finished to the satisfaction of the superintendent, the final instructions are given, viz.: to put on their old clothes directly over the unguent, to go home, and return to the hospital in forty-eight hours. Neither are they to take a bath in the mean time, or to rub off the ointment, but bring their old clothes with them,—wear them,—to be fumigated, besides a bundle of clean clothes; they are to sleep alone and have their bedding boiled. With these injunctions, they are dismissed. Upon returning, they receive a bath, and the cure is considered complete. In this way all the scabies patients who apply at the St. Louis are treated; but the question arises, Is this single application of soap and sulphur sufficient to destroy all the acari? Many of the patients apply the remedies carelessly, and in others, where the epidermis is thick, it is not thoroughly

penetrated by the ointment; but undoubtedly the majority of cases are cured, for I have seldom seen a scabies patient reapply for treatment with a new crop of eruption. On the other hand, if the treatment be thorough, why is scabies so rife in Paris? and why does not the ratio diminish? It may also be suggested, does not such a rapid and violent rubbing with irritants produce an eczema, and thus the cure of one trouble induce another? In some cases, where the scabies is of a high grade, doubtless a new eczema will be provoked; but in the majority of cases the cure is followed by no serious symptoms, and scabies patients seldom return with eczema. In the wards of the St. Louis the collection of cases is such as can be seen in no other hospital in the world, although, as before stated, the student does not receive sufficient instruction to profit by them. Considering scabies as the commonest of all the skin affections in Paris, eczema (produced by causes not parasitic) may be placed next; and its treatment differs greatly from that of the German school. The employment of the revulsive treatment for eczema, so well known in Germany and used with such grand results, is almost ignored in the St. Louis. In its place we find a treatment of poultices and emollient dressings,—the same that Alibert employed fifty years ago. With this method the cure is slow, months often being required for the cure of a simple case. Taking the treatment of eczema as a stand-point, I would notice the marked difference in the treatment of skin diseases in general as practised in Paris and in Vienna. The French school advocates soothing poultices, bland ointments, and baths for almost all affections; it relies upon internal treatment for the cure, the theory being that the appearances on the skin are simply symptoms of the diathesis, and that the treatment must be directed against the diathesis, and not against the eruption. The German school maintains that the immediate exciting cause of the disease should, if possible, be recognized at once, and a simultaneous endeavor made to remove the appearances on the skin. Whether it be an eczema or psoriasis, a herpetic or arthritic diathesis, the desire is to get rid of the eruption as soon as possible; and any treatment, either external or internal, that will conduce towards this end must surely be the correct one. This same principle prompts the German school to direct its treatment in many cases against disease as it develops externally; for, not being acquainted with specific internal remedies, the attention is given with vigor to the external treatment, making life at least durable to the patient. Secondary and subsequent forms of syphilis are to be found in great numbers in the wards of the St. Louis, the treatment being similar to that employed at the Midi and Lourcine. Diseases of vegetable parasitic nature abound in Paris, more of these being seen in a week at the St. Louis than in two months in any other hospital. Tinea tonsurans is exceedingly common, and is treated by epilation with the forceps and parasiticides. Tinea favosa is frequently met with, and the same treatment is relied upon, the employment of the "calotte," as formerly practised, being altogether in disuse. Parasitic syphilis due to the presence of the trichophyton is also of very frequent occurrence. Strange as it may appear, this form of syphilis is very rarely found in Vienna, some of the dermatologists of Austria having even been inclined to doubt its existence in Paris. The microscope, however, quickly settles this question, and without the tedium of argument. Within the enclosure of the hospital there is a building, containing perhaps twelve beds, devoted to Elephantiasis græcorum, cases of which are con-

tinually arriving from the French southern provinces, as Mauritius, etc. The disease has generally made such horrible ravages by the time the cases reach the hospital, that there is but little hope for recovery, or even amelioration.

The baths of the St. Louis deserve the attention of every physician visiting Paris, for they may be considered as the most complete to be found in the world. They occupy a separate building, and are fitted up in style, and even luxury. As you enter the main door, on either side are apartments containing a series of tubs, on one side for the men and on the other for the women. In each apartment are thirty-two iron tubs, lined with white enamel, and furnished with hot and cold water, while a white linen curtain separates one tub from the other. In these tubs simple, sulphur, starch, bran, and other medicated baths are prepared. Further on, in another apartment, are the arrangements for fumigations with mercury, aromatics, etc., and adjoining is the room devoted to the steam and Russian baths. Opposite is the grand douche room, where all manner of hydropathy is employed. Here shower, plunge, and seat baths, with numerous other devices, are found, to suit the demands of all cases. The whole is upon a magnificent scale, everything being introduced that can in any way benefit the patient. The baths for the scabies cure are altogether distinct and removed from this department.

In connection with the St. Louis Hospital is the fine dermatological museum, containing models and preparations of various kinds, besides many delicately-painted portraits of skin diseases, and a large number of chromo-lithographic plates and photographs. The models, made of a secret preparation of wax, moulded and prepared by M. Bareta, of Paris, display most excellent workmanship, and bring the disease to mind with remarkable vividness. Indeed, this is the most complete and beautiful set of models of these affections in the world; and great credit is due the gentlemen who first inaugurated this instructive and valuable department of dermatology. Speaking of the museum, I cannot close without mentioning that Dr. Wigglesworth, of Boston, has recently purchased a complete set of these exquisite models. The medical profession generally should certainly feel gratified to think that at least one such collection has found its way to America.

REVIEWS AND BOOK NOTICES.

A PRACTICAL TREATISE ON THE DISEASES OF CHILDREN. By J. FORSYTH MEIGS, M.D., etc., and WILLIAM PEPPER, M.D., etc.; Fourth Edition of Meigs on Diseases of Children. Philadelphia, 1870. Lindsay & Blakiston. 8vo. pp. 921.

In this portly volume our readers will not, at first glance, recognize a tried and valued friend which has helped them out of many a scrape, but, amidst a vast amount of new matter, they will often get a kindly nod of greeting from some familiar phrase or well-remembered case. The rapid sale of the three earlier editions of "Meigs on the Diseases of Children" fully attests the popularity of this standard work. Some years have elapsed since the last edition was exhausted, and the demand for a new one was great. The strides which science had in the mean time made called for a recast of the whole work,—a task which no busy practitioner like Dr. Meigs could undertake single-handed. He therefore associated with himself a gentleman whose name betokens painstaking accuracy, thorough research, and crisp analysis; and this happy partnership has resulted in a superb work, printed

in closer type than any preceding edition, and yet containing two hundred more pages of matter.

Our task as a reviewer is a gracious one; for there is much to praise and little to blame. Seventeen new articles have been added, and the section on dermatology has been much enlarged, whilst every page has been retouched, and the very latest views on pathology and treatment are presented in the fullest manner. The chapter on croup is a most masterly one. Bacon has said that "truth more certainly emerges from error than from confusion;" but, by closely following the pathology of this protean disease, the authors have extricated, out of an almost hopeless confusion of jarring terms, a clear record of its different phases. With great propriety, Laryngismus stridulus has been taken out of this group and placed among the neuroses, where it belongs. This article, together with those on eclampsia and atrophic infantile paralysis, elicits our admiration; but so, indeed, do all those which treat of the nervous affections of childhood. To our thinking, the chapter on chorea is the best in the book; although we cannot agree with the authors that the choreic phenomena are best explained upon the theory of capillary embolism impairing the nutrition of the sensori-motor ganglia.

The exanthemata have received that attention which their importance and frequency in childhood demand. Every chapter devoted to this subject is excellent; but the one on scarlet fever seems really to exhaust all the knowledge we possess about this formidable disease. We must, however, express surprise at finding in it a lurking half-belief in the prophylactic virtues of belladonna. Do Drs. Meigs and Pepper believe also in the weapon-salve and the philosopher's stone?

A tone of candor pervades this book which gives it weight and character. None but sterling men—certainly no mere bookmakers—would frankly confess that an enlarged experience has shaken their confidence in remedies on which they formerly set undue value. From Greenland's icy mountains to India's coral strand, it takes a deal of grace to renounce one's idols; but our authors have sternly banished mercury from the therapeutics of cholera infantum and diarrhoea, from pulmonary affections, and from a host of other diseases. Blood-letting and antimony have also been dethroned; and as for blisters, they are not used, even in pleurisy. In the name of the coming infant—thanks!

After a careful examination of the volume before us, we are led to the conclusion that it is superior to any of the recent works on the subjects of which it treats. We therefore urge our readers to put away their earlier editions upon the top shelf of their libraries, and *squeeze* into the gap—if they can—the edition of 1870.

REPORT TO THE SURGEON-GENERAL, U. S. ARMY, on Certain Points connected with the Histology of the Minute Blood-Vessels. By BVT. LIEUT.-COL. J. J. WOODWARD, Assistant Surgeon U. S. Army. Washington, D. C., 1870. 4to, pp. 8. Accompanied by ten photomicrographs.

These brilliant results of the operations at the Surgeon-General's office are photographs from microscopic preparations made by the aid of the staining solutions of silver nitrate—first suggested by Von Recklinghausen, of Berlin, in 1860,—usually of the proportion of one part of the crystalline silver nitrate to four hundred of water, though the result is not altered by a considerable variation on either side, provided the solution is well washed off before the tissue is exposed to the light.

These preparations are the first of which any published description has appeared in this country, and they exhibit a success which is deserving the highest gratulation. The photographs illustrate, first, the endothelium of the minute blood-vessels,—arterioles, capillaries, and venous radicles,—and prove conclusively its existence; second, they show, also, the so-called stomata of Cohnheim, or spaces between the epithelial cells through which the leucocytes are supposed to seek egress. Without desiring to be too critical, we cannot but feel that the term *intermediate spaces* of Stricker, as being at once more correct and more consistent with a scientific nomenclature, would be the better employed.

We are somewhat at a loss to determine the means by which Dr. Woodward would distinguish capillaries from

small arteries. Ordinarily it is stated that the passage of a capillary into an arteriole is by the scattered addition of transverse nuclei, though it is well known, also, that certain small veins, as well as arteries, are destitute of muscular fibre-cells. These are wanting in many of the vessels described as small arteries. Does he determine the question by relative size alone? The endothelial cells of small arteries are described and depicted as being more elongated than those of veins.

These photographs have the further merit of showing plainly what they are intended to represent, with perhaps a single exception,—that showing the white blood corpuscles exhibiting amoeboid movements in the external coat of a small vein. These cells present the appearance of granular bodies of various sizes and shapes imbedded in a fibrous stroma, which may readily be interpreted as white blood corpuscles or protoplasmic matter; but to conceive them as the active seat of amoeboid movements, or as insinuating themselves through the wall of a blood-vessel, appears impossible, at least to one not having seen the process under the microscope. The difficulties of presenting such conception by photograph we deem insurmountable. It has been our good fortune to see this photograph projected upon screen by the gas microscope, with similar ill success, so far as giving the proper conception is concerned. But this does not detract from the truth of the observation, which has ample confirmation; and we have no doubt that the original specimen, by the aid of transitional focusing, satisfactorily show these white blood corpuscles in the act of wandering through the coats of the blood-vessels. Admitting, as his own observations amply show, that the passage of the white blood corpuscles through the vascular walls is amply proved, we are glad to read the concluding paragraph of Dr. Woodward, in answer to an interrogatory as to the correctness of the theory of inflammation which Cohnheim builds upon these facts and his corneal studies: "I find the evidence insufficient, as yet, to afford satisfactory answers to these questions. The observations made by Cohnheim on the connective tissue corpuscles of the tongue of the frog are not conclusive in themselves, and Stricker's studies on the same subject show the necessity of further labor in this direction before the possible multiplication of these elements in inflammation can be denied. As to the doctrine that the white corpuscles, after their escape from the blood-vessels, are transformed into the elements of normal or pathological tissues, the facts hitherto brought forward can scarcely be said to do more than raise it to the rank of an ingenious hypothesis. The actual steps of this transformation, if it does occur, have yet to be observed."

It is finally stated that the preparations referred to in this circular can be examined by any professional microscopist who may visit the Army Medical Museum at Washington. But is this sufficient? Would not the objects of the museum be better accomplished, and the cause of medical education further aided, by the distribution of these specimens throughout the country by sale at a reasonable price? And where specimens are prepared in the almost wholesale manner in which they are at the Army Medical Museum, with facilities unequalled, perhaps, throughout the world, such a distribution would be quite possible. Many a medical teacher could thus afford to purchase a few specimens and study them at his leisure, when he could not assume the expense of a trip to Washington and of a sojourn there sufficiently long for purposes of study.

GLEANINGS FROM OUR EXCHANGES.

POISONING BY DYEING ANILINE BLACK. By A. DOLFUS. (*Chemical News*, Oct. 14, 1870; *Polytechnisches Journal, von Dingler*, first Number, for Sept. 1870.)—The author states that while two of his workmen were engaged in dyeing cotton yarn in a hot mixture consisting of aniline, hydrochloric and tartaric acids, copper, chlorate of potassa, and water, they were suddenly seized with severe headache, difficult respiration, tremor, and languor, becoming cold and weak. Medicinal treatment restored them to health. The symptoms are difficult to account for, except by assuming them to be due to the volatilization of chloride of arsenic, which may have been

formed if, through the carelessness of the manufacturer of the aniline, arsenic was left in it; unless, indeed, aniline itself is capable of exerting a poisonous influence.

ANTISEPTIC TREATMENT OF CONTAGION AS ILLUSTRATIVE OF THE GERM THEORY OF DISEASE. By WILLIAM HOPE, V.C. Paper read before the British Association, Liverpool. (*Chemical News*, Oct. 21, 1870.)—By the "germ theory of disease" the author means "the process by which an infectious disease, having once originated, is disseminated and communicated from one subject to another;" but he does not apply it in any way to the *origin* of such diseases. On the contrary, he has "the greatest difficulty possible in believing that the germs of Asiatic cholera existed in a passive state from the creation of the world down to 1817," and that they were then "called into existence by getting into the congenial climate of a Hindoo stomach." In 1867 he had the opportunity of testing thorough disinfection, by means of carbolic acid and slaking lime, as a therapeutic agent in the treatment of rinderpest, which had attacked a large number of valuable cows. From his remarkable success, not only in preventing the spread of the disorder, but also in curing the affected animals, he was led, a year later, to try the same means in the treatment of cases of scarlatina in his own family. Carbolic acid was administered internally, and the air of the sick-room was impregnated with it. The cases did perfectly well; but, in spite of the disinfectants, the disorder spread to others among the children. Nevertheless, Mr. Hope thinks that, in all probability, disinfectants kill germs, that there is reason to believe that rinderpest, at any rate, was checked by disinfectants, and that therefore it is fair to imagine that disease is propagated by germs.

EXCISION OF THE TONGUE.—Prof. G. E. Fenwick, of McGill University (*Canada Medical Journal*, vol. vii. No. 1), reports the case of a male, fifty-nine years of age, suffering from epithelioma of the tongue and of the corresponding side of the floor of the mouth, but without lymphatic involvement, in which he removed the affected structures by carrying an incision through the lower lip down to the hyoid bone, and dividing the jaw at the symphysis with a Hey's saw. The tongue being then drawn upwards, he cut through the attachments of all of the central muscles of the right side of the jaw-bone, and detached the mucous membrane of the floor of the mouth on the corresponding side, thereby laying bare the mylo-hyoid muscle. The same was done on the left side, excepting that the origin of the genio-hyoid muscle was left, and during this step of the operation the lingual artery was divided, but it was temporarily compressed. The chain of the écraseur was next passed fairly beneath the diseased mass and pressed back close to the epiglottis, when the organ was slowly crushed off. No hemorrhage of consequence followed, and the procedure was completed by wiring together the opposed surfaces of the lower jaw, and approximating the soft parts by eight points of the wire suture. The patient recovered without an untoward symptom, and nearly eight months after the operation the stump of the tongue was entirely healed; there was firm union at the symphysis; he could masticate freely; his health was robust, and his speech was quite intelligible,—so much so, indeed, that he was able to pronounce words that before were spoken with difficulty.

In his remarks upon excision of the tongue, Professor Fenwick says, "I have noticed in several of the cases that have been operated on in the London hospitals, when the écraseur was used, some difficulty was experienced in consequence of hemorrhage following the severance of the diseased mass. In the three cases reported by me, there has been no difficulty of this nature. This I account for from the fact that, in my cases, the vessels of the part were divided by the écraseur transversely, as my assistant on each occasion drew the organ forcibly out of the mouth, directing it upwards. In Regnoli's operation, which I regard as unsurgical, the tongue is drawn downwards, so that the vessels are crushed diagonally, and cannot retract as effectually within their sheath as if otherwise treated. Another objection to Regnoli's method is the severance of all the muscular attachments of the elevators of the os hyoides, and also the muscles antagonistic to the closure of the epiglottis, so that in one instance on record the surgeon had to pass a ligature through the epiglottis to prevent his

patient becoming asphyxiated. In a case reported by Mr. Erichsen, where he performed Regnoli's operation, the patient had to be fed with a tube passed into the stomach, as there was perfect inability to swallow, - a result which will not occur if the attachments of the muscles which raise the os hyoides in the act of swallowing are preserved. It appears to me that it is of vital importance to preserve the attachment of these muscles; and, to avoid the chance of troublesome, if not fatal, hemorrhage, the vessels, when the écraseur is used, should be divided transversely."

EFFECTS OF COXALGIA ON THE GROWTH OF THE LIMB.—Dr. E. Boeckel (*Archives de Physiol.*, No. 4, 1870) records some very interesting pathological observations on the ultimate effects of coxalgia on the subsequent growth of the limb. In 1835, Sédiot demonstrated the atrophy and malformation of the pelvis resulting from congenital luxations. In 1862, Humphry demonstrated, in eighteen cases of early resection of the knee, that the limb was shortened more or less in nearly every case. He ascribed it to defective growth at the epiphyseal cartilage. Dr. Boeckel has investigated thirteen cases of coxalgia, nine on the body and four on the skeleton, at intervals of from four to fifty-four years after the disease was cured. Besides the deformities of the pelvis, he found the femurs shortened from 1 to 5 centimetres ($\frac{2}{3}$ inch to 2 inches), the tibias shortened from 1 to 3 centimetres ($\frac{2}{3}$ inch to $1\frac{1}{2}$ inches), the feet from 1 to 3 centimetres, and the girth of the calves of the legs from 1 to 7 centimetres; showing that such a disease has a marked effect over the entire bony and muscular development of the limb affected. The deformities of the pelvis are important in an obstetrical point of view.

FRAGMENT OF KNIFE-BLADE LODGED IN THE CHEST FOR TWELVE YEARS, AND FINALLY COUGHED UP.—Dr. J. F. Snyder reports (*Chicago Med. Ex.*, July, 1870) the case of a man, aged 60, who was wounded twelve years previously by a stab in the back about the point of the shoulder-blade. The man had no idea that the fragment of the knife was imbedded there. He suffered from cough only at the time of the expulsion of the foreign body, when it continued for four weeks. The fragment of steel was corroded and pitted by oxidation, and was $1\frac{1}{4} \times \frac{1}{2}$ inch.

CONGENITAL ABSENCE OF ONE LUNG.—Dr. W. Dickey records (*Cin. Lancet and Observer*, July, 1870) the case of Miss B., aged 16, who fell sick of consumption. "Percussion elicited a dull sound over the entire right lung; right side unusually resonant; . . . strong cardiac impulses were heard on the right side. Autopsy twelve hours after death. On opening the thorax, we found the left lung studded with tubercles, . . . somewhat larger than usual, but consisting of two lobes as ordinary. No lung in the right side,—not even a rudiment at the bifurcation. Between the largest of pleura the space was clean and beautiful. No lung had ever existed. Heart in the mediastinal space, but in the right side corresponding to a natural situation in the left. Its walls were thickened, and cavities somewhat enlarged."

[The report of this very unusual case is, unfortunately, very meagre and unsatisfactory, whether as to exactness of observation before death or clearness of description after death. The post-mortem was necessarily very hastily made; but the report at least could have been written at leisure.]

HYPERTROPHY OF MUSCULAR WALLS OF SMALL ARTERIES IN CHRONIC BRIGHT'S DISEASE.—Dr. Geo. Johnson (*Brit. Med. Jour.*, April 16, 1870) gives an interesting résumé of our knowledge of the anatomy and the pathology of the changes in the vascular system in chronic Bright's disease. More than thirty years ago, in the 1st vol. of Guy's Hospital Reports, Dr. Bright pointed out the hypertrophy of the left ventricle, and suggested that "the altered quality of blood might so affect the minute and capillary system as to render greater action necessary to force the blood through the distant subdivisions of the vascular system." Twenty years ago, in the 33d vol. *Med.-Chir. Trans.*, Dr. J. described the hypertrophy of the renal arterioles, and suggested, as a cause, their effort to help on the blood through the compressed vessels in front. In the 51st vol. *Med.-Chir. Trans.* will be found his corrected views, both as to facts and causes. He argues that the cause of this hypertrophy of the renal vessels is the constant reflex muscular efforts excited by the abnormal quality of the blood;

and it occurred to him that the arterioles everywhere should suffer in like manner, as the same vitiated blood circulated everywhere. On looking at the arterioles of the pia mater, skin, intestines, muscles, etc., he found it almost as well marked. There was no structural change other than hypertrophy. This hypertrophy in the minute arteries would cause obstruction to the circulation, and this, in its turn, would bring cardiac hypertrophy, exactly according to the shrewd guess of Dr. Bright himself.

These facts explain—1. The cardiac hypertrophy; 2. The full, hard radial pulse and its sphygmogram; 3. The excessive dryness of the skin, and the difficulty of inducing diaphoresis; 4. The tendency to dropsy by the impeded circulation; 5. The not infrequent cerebral hemorrhage.

ACTION OF CARBONIC ACID ON THE BLOOD, BRONCHIAL SECRETIONS, ETC.—Of the numerous papers presented to the British Association at its recent meeting (Sept. 14-21), none was more interesting than that of Dr. B. W. Richardson, embodying the results of physiological experiments with carbonic acid (*London Lancet*, Sept. 24, p. 438). When the serum of the blood was treated with this acid under pressure and gentle warmth, the colloidal part was separated; but when defibrinated blood was acted upon, there was no direct separation, and the blood-corpuscles seemed for a time to engage the gas by condensation of it. But blood containing fibrin, and holding fluid by tribasic phosphate of soda, was at once coagulated by the acid. The bronchial secretion was thickened by carbonic acid, and a tenacious fluid obtained, resembling the secretion in asthma and bronchitis, while secretions on serous surfaces were thickened and rendered adhesive.

These experiments are valuable on account of their relation to different morbid conditions. When the temperature of the body is raised, and the production of carbonic acid is excessive, the blood on the right side of the heart has its fibrin often precipitated. In many other cases, fibrinous or albuminous exuded fluids are solidified in presence of the acid, as is the case in croup. Dr. Richardson also referred to the rapidity with which blood charged with carbonic acid absorbed oxygen when exposed to that gas, and he held that carbonic acid in the venous blood was as essential to the process of respiration as was oxygen in the pulmonary organs.

RELATIVE TEMPERATURE OF THE RIGHT AND LEFT SIDES OF THE TRUNK.—Observations have been made by Edward T. Blake, M.B., etc. (*Med. Times and Gaz.*, October 8, 1870, p. 420), to corroborate, if possible, the views expressed by him in a letter written to the same journal last June. From experiments on himself and others after exercise, he arrived at the following results: 1. The temperature of the two sides of the trunk under usual circumstances—that is, in health and at rest, in a temperate climate—is equal. 2. Under certain conditions, as exercise, the temperature of the left side of the trunk may exceed that of the right. 3. The excess during exertion, in a cool atmosphere, averages half a degree Fahr. 4. The excess reached its maximum—about one degree Fahr.—during exertion in a powerful sun.

ACTION OF THE SYMPATHETIC ON THE URINARY SECRETION.—M. Peyrani has recently experimented with dogs, cats, and rabbits, in some of which he divided the nerve before applying the galvanic current, and in others he left the nerve entire. The results arrived at are as follows:

1. The quantity of urine and urea increases in proportion to the force of the voltaic current.
2. When currents of the same intensity are employed, the current of induction produces a much greater increase in the quantity of urine and urea than the constant current.
3. If the sympathetic is merely cut, and not acted upon galvanically, the quantity of urine and urea is at the minimum.
4. When galvanism is applied to the peripheric end of the nerve, already cut in the neck, the quantity of urine and urea descends much below the normal standard, although the figures are much below those obtained after the action of the current upon the previously uncut nerve.

POISONING BY YEW BERRIES.—In the *Medical Times and Gazette*, Dr. A. H. Newth reports a post-mortem made by himself upon the body of a lunatic, who was found dead after having eaten a quantity of yew berries. The points worthy of notice in this are as follows: the fluidity of the blood,

which was "of a peculiar dirty plum color, very limpid, and staining readily;" the stomach and bowels reddened, inflamed, softened, but not ulcerated; the mucous membrane of the lower end of ileum (where numbers of berries were found) was furnished with numerous sudaminoid vesicles, of the size of a large millet-seed, and containing granular corpuscles in a whitish fluid; the pancreas congested; the spleen of a peculiar, jelly-like feel, breaking down readily on pressure, and appearing "congested and watery" on section; the liver and kidneys congested; the brain-membranes passively congested, the substance rather watery, without numerous puncta sanguinea; the subarachnoid space with considerable effusion; fornix, crura, and optic thalamus much softened.

We take the following from the *London Pharmaceutical Journal*: "*L'Imparziale*, of Florence, mentions the case of a girl who took decoction of yew berries to bring on her catamenia. She repeated the dose every morning for three days, but on the fourth took an increased dose of eight ounces. Severe vomiting ensued; a medical man was called in, and the vomiting was encouraged by the use of tepid water. In spite of every effort, however, the patient died delirious eight hours after taking the last dose. Nothing of importance was revealed by the post-mortem."

GELSEMIUM.—The conclusions arrived at by Dr. Roberts Bartholow, in a paper in *The Practitioner* for October, 1870, are, that in frogs gelsemium acts upon the nerve-centres, paralyzing first the sensory ganglia, and afterwards the motor; that it does not affect muscular irritability, nor the peripheral nerve-fibres. In warm-blooded animals the same effects were observed, save only that the motor fibres were the first affected. There is also produced a depression of temperature, 30° F. in the case of a pigeon, 40° F. in that of a kitten. The doctor also states that repeated trials have convinced him that there is no antagonism between it and strychnia, the latter drug rapidly tetanizing warm-blooded animals already profoundly affected by gelsemium.

HYDRATE CHLORIDE OF ALUMINUM.—According to the *Chemical News*, this substance, under the name of "chlor-alum," is largely coming into use as an antiseptic. It is said to be very powerful as such, and at the same time non-poisonous and odorless.

MISCELLANY.

THE curators of the Edinburgh University have brought a storm upon their heads by their appointment of Dr. Alexander R. Simpson to the professorship of midwifery, vacated by the death of his uncle, Sir James Y. Simpson. Two gentlemen of great reputation and undoubted ability—Drs. J. Matthews Duncan and Alexander Keiller—were also nominated for the place; but Dr. A. R. Simpson's relation to the former incumbent seemed, in the eyes of the curators, to outweigh all other claims.

Dr. Simpson's position is not an enviable one. He knows that the feeling of the mass of the profession in Great Britain is against such palpable nepotism; indeed, he has actually been called upon to resign the chair, in a written request signed by many physicians and students. On the other hand, Dr. Duncan has been urged to deliver a six months' course of lectures on obstetrics, in a letter already backed by nearly three hundred names.

AN ingenious German is said to have invented a form of turbine wheel adapted for use as a motor-power for the sewing-machine. According to the account in one of the daily papers, it occupies a very small space, and can be attached to any hydrant or water-pipe, makes no noise, and scatters no water. The connection with the machine is effected by means of belting.

The general adoption of such a contrivance as this would set at rest the very common idea that the use of the sewing-machine is injurious to health. We are not aware of any well-authenticated cases of such injury, however; and the operators are so numerous that any disorder affecting them as a class could hardly fail to attract attention.

THE following grim statement appears in the *London Medical Press and Circular* for July 13, 1870:

"**BLACK DEATH IN GEORGIA.**—One hundred and fifteen persons died with cerebro-spinal meningitis, in Coffee county, Georgia, in the month of March. Malignant epidemics of this disease are prevailing, besides, in parts of Mississippi, Florida, South Carolina, and Pennsylvania."

Perhaps this is true,—although we had not heard of it. But why call the disease "black death"?

AMONG the curious differences which exist between this country and Great Britain in regard to the way of doing things, we note that here a railroad-company generally compromises with persons who bring suit against it for injuries sustained, unless the damages demanded are excessive or the claim is obviously trumped up. On the other hand, in England, at least, the cases of the kind which come before the courts are numerous. We find it stated that a surgeon who made it his business to hunt out and work up such complaints was compelled to abscond.

TWO new tests for determining whether death is real or apparent have recently been proposed. One is by the application of calabar bean to the eye, upon which, unless life is extinct, the iris will respond to the stimulus and the pupil will become contracted. The other is by the insertion of a bright steel needle beneath the skin: if the tissues are living, the needle will in a short time become rusted; but if death has occurred, it will retain its polish, even after half an hour. Nothing, surely, could be easier than to determine the value of either of these tests, and nothing simpler than to apply them in any given case of doubt, if either should be proved to be reliable.

AN ATTACK UPON ETHER.—A late homeopathic writer, after describing a case of death from chloroform, urges that very great harm has been done by ether also. He thinks that no account has been taken of the lasting injury done to the mind and to the nervous system by the latter agent. This is entirely in accord with a popular prejudice; but, if there were any foundation for it, it could not have escaped notice, considering the vast experience of the profession in the use of this anesthetic during the last twenty-three years.

CREMATION.—From time to time, a return to the ancient custom of burning the dead, instead of burying them, has found advocates. During the present Franco-Prussian war a number of journals have urged it as a matter of economical and sanitary importance. No government, however, has as yet undertaken to attempt the change; and this is the only way in which it could be effected. Perhaps the new impetus given to the use of earth as a disinfectant, within the last few years, makes it less probable than ever that the practice of burial will be abandoned.

"**DR. NEWTON,**" the "miraculous cure" quack, who has repeatedly attempted his impostures in this and other American cities, was not long ago mobbed in a Baptist church in London and compelled to fly for his life. The public will be gulled by such a man; but they are enraged if he lets them detect his knavery.

In the *Medical Press and Circular* of July 6, it is stated that a physician was recently tried in London for an alleged rape (and, from the obscurely-worded account, it would seem that he was convicted and sentenced to transportation), his actual offence having been merely the introduction of a speculum. The mother of the girl is said to have been in the adjoining room at the time; and it is difficult to understand how a case could be made out, since if she saw the attempt she could have interfered, and if she did not she could not have testified to it. The girl herself was under the influence of chloroform.

THE Siamese twins are in trouble. One of them has had an attack of paralysis; and, bad as this is for him, it really seems as if it must be worse for the other. It would be strange indeed if death should compel the sundering of the nearly fifty-years-old bond between the pair,—if some country doctor should be called upon to perform the operation from which the most eminent surgeons in the world have shrunk.

HIPPOMAGY.—Horse-meat is being practically tested as an article of diet by the Parisians. The experiment, being a compulsory one, will doubtless be carried on with less zest than by the society of a few years since. This is perhaps, however, the least of the hardships to which the *gourmets* of the gay city are subjected.

The *Medical Times and Gazette* gives the following statement, the heading of which is very applicable to us in this longitude:

"AN EXAMPLE TO US.—Dr. Von Schmidt has lately been tried before the correctional tribunal at Paris, on the double charge of practising without a diploma and selling secret remedies. He professed to be able to cure cancer, and obtained some temporary notoriety, in consequence of being called to attend Count de Goltz, the Prussian ambassador. His secret remedies turned out, on examination, to be turpentine, spermaceti, and aloes, to which he had given high-sounding and fantastic names. He was found guilty on both charges, and sentenced to two fines, one of fifty francs and one of one thousand francs. He had been convicted previously at Brussels, but had escaped the punishment by flight."

A PHYSICIAN in Portland, Me., having been sued for malpractice in a case where he performed an operation upon the hand, obtained a verdict upon the somewhat unsatisfactory ground "that the ether administered to the patient affected him (the physician) so that he was unconscious of what he did."

AN exchange states that in Rome Jews are not allowed to practise pharmacy at all, and medicine only upon people of their own faith.

MORTALITY OF PHILADELPHIA.—The following statements are condensed from the Health Office Reports:

	For the week ending Nov. 12. Nov. 19.	
Diseases of the Brain and Nervous System	38	41
Diseases of the Organs of Circulation and Respi- ration	105	96
Diseases of the Abdominal Organs	26	24
Zymotic Diseases	9	14
Constitutional Diseases	10	8
Casualties	5	10
Stillborn	17	7
Unclassified	45	45
Unknown	1	1
Adults	153	140
Minors	103	106
Totals	256	246

LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM NOVEMBER 4, 1870, TO NOVEMBER 17, 1870, INCLUSIVE.

WIRTZ, H. R., SURGEON.—By S. O. 25, Headquarters Department of Arizona, Oct. 13, 1870, to proceed to *Drum Barracks*, California, and await further orders from these headquarters.

WEBSTER, WARREN, SURGEON.—By S. O. 218, Headquarters Department of the East, Nov. 4, 1870, to proceed without delay to *Fort Warren*, Mass., and relieve Assistant Surgeon J. H. Kinsman from duty as Post Surgeon.

HAPPERSETT, J. C. G., ASSISTANT SURGEON.—By S. O. 231, Headquarters Department of the East, Nov. 16, 1870, the leave of absence granted Assistant Surgeon Happerset in S. O. 123, Headquarters *Fort Washington*, Md., is extended *twenty days* on surgeon's certificate of disability.

WHITEHEAD, W. E., ASSISTANT SURGEON.—By S. O. 218, Headquarters Department of the East, Nov. 4, 1870, relieved from duty at *Fort Columbus*, N.Y.H., and to proceed *at once* to *David's Island*, N.Y.H., and report to the commanding officer of that post for duty.

COWES, ELLIOTT, ASSISTANT SURGEON.—By S. O. 218, Headquarters Department of the East, Nov. 4, 1870, upon being relieved at *Fort Macon*, N.C., to proceed to *Fort McHenry*, Md., and report to the commanding officer and Post Surgeon.

KINSMAN, J. H., ASSISTANT SURGEON.—By S. O. 218, Headquarters Department of the East, Nov. 4, 1870, upon being relieved as Post Surgeon, by Surgeon Warren Webster, at *Fort Warren*, Mass., to proceed to comply with par. 2, S. O. 176 c.s., from these headquarters.

KINSMAN, J. H., ASSISTANT SURGEON.—By S. O. 227, Headquarters Department of the East, Nov. 12, 1870, granted permission to delay for *twenty days*, proceeding to *Fort Johnson*, N.C., when relieved by Surgeon Warren Webster.

CALDWELL, D. G., ASSISTANT SURGEON.—By S. O. 241, Headquarters Department of the South, Nov. 5, 1870, having reported at these headquarters, in compliance with S. O. 111, Headquarters of the Army, A. G. O., c.s., to report without delay to the commanding officer *Post of Chattanooga*, Tenn., for duty as Post Surgeon, relieving Acting Assistant Surgeon J. H. Van Deman.

BENTLEY, EDWIN, ASSISTANT SURGEON.—By S. O. 171, Headquarters Department of California, Nov. 2, 1870, granted leave of absence for *thirty days*, with permission to apply for an extension of thirty days.

BARTHOLF, J. H., ASSISTANT SURGEON.—By S. O. 244, par. 1, Headquarters Department of the South, Nov. 9, 1870, to proceed without delay to *Lebanon*, Ky., and report to the commanding officer of that post for temporary duty as Post Surgeon, relieving Acting Assistant Surgeon W. H. Hopper, U. S. Army.

OCCLUSION OF THE VAGINA. By DR. MALLORY (*Rich. and Louis. Journal*) and DR. HALBERTSMA (*Central-Blatt*, March, 1870).—Dr. Mallory reports a case of occlusion of the vagina, with prolonged retention of the catamenia, occurring in a woman aged 30, two years after her last confinement. A puncture was made into the tumor, which was felt in the vagina above the obstruction, and a black, tarry fluid escaped, followed by perimetritis and the formation of an iliac abscess. Two years afterwards the vagina was again occluded, and a second operation became necessary, which was again followed by perimetritis; but subsequently complete recovery took place.

Halbertsma explains the bad effects which so often follow an operation of this character by the fact that, when the uterus is rapidly emptied of the contained menstrual fluid, the Fallopian tubes must be pulled upon and ruptured if, as is generally the case, adhesions exist; while, if they are still free, they are thrown into contraction with the uterus, and expel their contents into the abdominal cavity. Dr. H. makes only a small opening, and permits the retained fluid to escape drop by drop, and reports a case successfully treated in this way.

TUBERCULAR MENINGITIS IN THE SPINAL CORD.—Dr. Henry Lionville (*Archiv. de Phys.*, No. 4, 1870) records the results of his observations in cases of tubercular meningitis, so called, in which he draws attention to the fact that the disease is not limited usually to the cerebral meninges alone, but extends to those of the spine as well. "Everything leads us to believe that the examinations, and not the disease, were limited to these special regions." He found granulations of the same character as described by Cornil and Bastian specially marked in the posterior median fissure of the cord, and surrounding the vessels just as in the brain. This explains the motor and sensory troubles, the rigidity of the neck and trunk, the tetanic attacks, the functional paralysis, etc., much better than if it were limited to the brain alone.